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ABSTRACT

Intended to help professionals remain knowledgeable about current research in reading and to serve as a relatively accessible bibliographic source of research on a specific topic, this annual report summarizes approximately 1,000 reports of reading research identified between July 1, 1984, and June 30, 1985. The summaries are arranged into six major categories. The first category lists other general bibliographies offering summaries of reading research. The second category presents summaries of studies concerned with teacher preparation and practice, while the third category contains summaries of reports dealing with the sociology of reading. Most reports appear in the fourth category, which deals with the physiology and psychology of reading. The fifth and sixth categories cover reports on the teaching of reading and the reading of atypical learners. Concluding the document are a list of approximately 400 journals monitored for the summary and an author index. (HTH)

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Summary of investigations relating to reading July 1, 1984 to June 30, 1985

SAM WEINTRAUB, HELEN K. SMITH,
NANCY L. ROSER, WALTER J. MOORE,
MICHAEL W. KIBBY, KATHLEEN S. JONGSMA,
and PETER J. L. FISHER

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The fuzzy area of literature reviews, or What the baby boomers find when they read reviews of research

The analysis of trends in anything is, if nothing else, certainly trendy today. Such analyses are always good for a publication or at least a paper of some conference or other. Analyses of trends are not indigenous to the field of reading. As a nation, we seem to enjoy tracing various emerging factors. One current trendy analysis has to do with just about every aspect of what the baby boomers are doing.

Although I do not have the statistics to verify it, I suspect strongly that the baby boomers constitute the preponderance of IRA's membership these days. What do they find in the research literature? Certainly a growing trend would seem to be reviews of the literature in selected areas. In reality, such reports may even be more than a mere trend, inasmuch as their numbers seem to be so large. I'm not certain what the next stage after a trend is, but I think we may have passed into it already if sheer numbers are any determinant. In other words, reviews have arrived. They are in. They're now. They're the wave of the 80s or whatever other overworked and trite phrase may be in favor. In short, the sheer number of reviews are awesome. Totally.

Now, for all you baby boomers who must be reading and perhaps even helping to write them, there are some questions which need to be addressed. First, obviously, is the query about whether we even need literature reviews as well as what function they can/do/should serve. Second, how trustworthy are they? And third, how does one read literature reviews?

Let me answer the last question first, because it's the easiest: skeptically! The response is partially but not totally facetious. However, it is not a complete response, for there is much involved in reading skeptically. More of skepticism later.

For those compulsive individuals who like their reading to be in some sort of neat sequence, let me go back and deal with my questions in order. Do we need literature reviews. Indeed we do! They serve a most useful function. In an area where there now exists over 15,000 pieces of published research, careful, comprehensive, and critical syntheses of the research can be extremely important in aiding a field to pull together what is known and in pointing out future directions. In some dissertations, where the author has organized a comprehensive body of literature in a new and meaningful manner, the review chapter may be the major contribution of the study. A good review is more than a simple listing of what's been done. There are many of those. They don't qualify as good. Among other things, such reviews seldom distinguish between the good and the poor research. It's all merely listed. Poor research isn't even given a qualifying warning. Those reviews offer little except that the author may perhaps have identified what's out there, assuming an exhaustive search has been carried out.

At a slightly higher and more beneficial level, the reviewer does some criticizing of the literature. By doing so, the author lets the reader know that in his/her opinion all the work is not of equal merit. Thus, the reader is at least aware that there are differences in the quality of the research reviewed and that the author is utilizing some criteria in evaluating the works included. When those criteria are clearly specified, the review is even more useful. Of even greater service to the reader and to the profession is the type of review in which not simply weaknesses of individual studies are presented, but the author notes problems, flaws, limitations, and improper and/or questionable methodologies common to a number of studies within one area.

Most beneficial to the field and to consumers of the research literature are comprehensive reviews which present an interpretative synthesis of the state of the art in that particular aspect of the field. In this type of review, the author may organize the literature in a unique and meaningful manner to bring out interpretations not heretofore perceived. Many years ago at an IRA conference, I recall listening to Jack Holmes do just that in a paper titled "When Should and Could Johnny Learn to Read?" (1962). More recently, Dolores Durkin did a similar thing as part of the culmination report on her longitudinal study of early readers (1974). In yet another area, Gene Jongsma reviewed the research literature on the use of cloze as a teaching tool, identified the problems with it, and pulled together what it added up to (1980). In still another area, Suzanne Wade (1983) did a masterful job with pulling together and giving meaning to the body of literature related to improving reading in the social studies. I was so impressed with the review that I wrote to the lady thanking her. Regrettably, my letter was returned marked "Addressee Unknown." Ms. Wade, if you're out there somewhere, thanks for brightening my day two or three years ago. I read a lot of research—*all* that appears in the summary. A good portion of it isn't very good and abstracting it becomes drudgery. Excellence in scholarship, though, stands out, is remembered, and makes the task worthwhile. Although I've cited only four examples of excellence, there are many others out there. In sum, literature reviews, when comprehensive and well-done, serve an invaluable function.

But what about my second question? How trustworthy are reviews? The quick response and the cop-out is, "It depends." Interestingly, though, the reader can't always depend on the brand name; i.e., because someone is well known and has published extensively, it isn't safe to automatically assume that the product is choice. There's no guarantee that the big name is synonymous with quality. Even when well-funded and headed by a blue ribbon committee, a supposedly comprehensive review may be narrowly based, considerably less than comprehensive, and biased in its selection of what is included and what is excluded. Note Grundin's review of *Becoming a Nation of Readers* (1985). Perhaps we're both wrong, but I happen to concur that a very selective body of literature was included and some rather critical research excluded.

What about new approaches to research reviews? Metanalyses have certainly caught on. They constitute almost another trend. Is that the answer? I don't think so. While metanalyses do reconstruct and look at research in a different and even unique way, such approaches still tend to leave untouched the worthwhileness of individual studies. Thus while a metanalysis adds up the findings across a number of studies and may in some cases give us a better answer, it has some weaknesses in that it doesn't differentiate the sloppily produced study from the rigorously designed, well-conceived, and carefully executed study. Again, everything is thrown into the pot.

Given this rather negative view of research reviews, how should the baby boomer read them and know whether the packaged contents can be believed. It's a difficult task for which, in all candor, I do not have a totally satisfactory response. I can make a few suggestions. They won't solve everything, but they may help.

First, one thing I do when I come across a review is to check the bibliography. It's checked for at least two things. First, I look to see who's cited. If the author cites only his work, or if a major number of references are to his/her work, I'm just a bit skeptical of the conclusions reached. It's very difficult to distance oneself from one's own efforts. I know because I've tried it—usually without much success. Most of us have too much ego involvement in our own writings and ideas to critique them fairly or to see even their most blatant limitations. It's almost a certainty, then, that the reviewer who relies heavily on his own work is going to agree with it, find it exemplary and remarkably clear and well-done.

A second check of the bibliography is done to note the dates on the citations. There are some writers who apparently have the feeling that nothing worthwhile was written before 1980. Either that or they haven't taken the time to look up anything else. In some cases, that narrow time span may be warranted. However, if the contention is that the review is supposedly comprehensive, then the author should have done a more exhaustive search.

Another point to look for is whether or not the author has indicated the dimensions of his literature search. What sources were culled? Does it seem that an extensive or at least a reasonably exhaustive effort was made to identify the corpus of literature out there? An ERIC only search is quite limited. Diverse sources should have been investigated, and the reader has the right to know what those were. Scholarship is, by definition, thorough. Editors, too, owe it to their readers to see that some standards of scholarship are maintained in manuscripts accepted for publication.

Is the author letting the reader know the bases for inclusion/exclusion of material? It may be perfectly legitimate to exclude some materials or to focus on a selected time span, but the justification for so doing needs to be delineated. Such careful reporting aids the reader in becoming a better informed consumer. In other words, the writer is abetting the reader's educational process by not simply presenting information (as important as that process and the information itself may be) but by giving the reader insights into the author's thinking process by presenting the procedures followed. I suppose in a sense it's "metawriting." Or from the reader's viewpoint, is it "metareading"?

Finally, the reader needs to bring his/her own background knowledge to the reading of the literature review. If anything is known about an area, the reader needs to ask if what the writer is saying fits in with what the reader knows as accurate. If you're not certain that the writer's interpretation of a given study is an accurate one, check it out. It's added work but important. If the writer is inaccurate about reporting one study, there may be other inaccuracies. Reading is an interactive process. So, interact!

The conclusions, interpretations, and implications ought to grow out of the findings of the studies reviewed or at least be supported by the conceptual framework the reviewer has developed. Sometimes, however, conclusions are nice, and may even be "right" (i.e., I agree with them), but not necessarily grow out of the research reviewed. *Becoming a Nation of Readers* is a case in point (1985). It's difficult to disagree with the conclusions. They're like motherhood, the flag, and apple pie. But all too frequently they don't seem to be tied to what the report claims they're tied to—the research literature.

So, baby boomers, you have my absolutely faultless, incredibly perfect plan for evaluating research reviews. Implement it!

On other matters

Having solved one of the more pressing problems of the day, it is time for a look at something else. That something else is essentially a reiteration of some statements from earlier editorials.

Readers will note the inclusion of older materials in this summary as well as in previous ones; i.e., the abstracts don't always fall into the dates indicated for a given summary year. In part that's because we frequently come across research that's been missed or to which we have not had access because our libraries don't subscribe to particular journals; or the journals were late in coming, or were at the bindery when needed; or we weren't even aware that a given journal, book, monograph, conference proceedings, etc., even existed until well past its publication date. In addition to these legitimate reasons for the late appearance of a research report, there is a not so legitimate reason: there were too many pieces of work identified and not enough time to get them all abstracted. Thus, there are well over 100 and possibly even 200 carry over research reports in this year's summary. If you're one of those authors whose work isn't in this summary when it should be, please be assured that I am not conducting a personal vendetta against you. I simply didn't get to it this year. Please accept my apologies. I'll try to get it into the next summary.

One more point, and certainly not the least important one. Special thanks is due to the many individuals who take the time to send me copies of their articles and to editors who send copies of their journals and conference proceedings. I am deeply grateful for their help.

Sam Weintraub

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DURKIN, DOLORES. A six year study of children who learned to read in school at the age of four. *Reading Research Quarterly*, 1974-1975, *10*, (1), 9-61.

GRUNDIN, HANS U. A commission of selective readers: A critique of Becoming a Nation of Readers. *The Reading Teacher*, December 1985, *39*, 262-266.

HOLMES, JACK A. When should and could Johnny learn to read? In J. Allen Figurel (Ed.), *Challenge and Experiment in Reading*. International Reading Association Conference Proceedings, *7*, New York: Scholastic Magazines, 1962, 237-241.

JONGSMA, EUGENE. *Cloze Instruction Research: A Second Look*. Newark, Delaware: International Reading Association, 1980.

WADE, SUZANNE E. A synthesis of the research for improving reading in the social studies. *Review of Educational Research*, Winter 1983, *53*, 461-497.

A microfiche edition of this *Annual Summary of Investigations Relating to Reading* is available. Annotated citations are provided in author and subject sequences on eye-readable, 4 x 6 cards; the full-text documents are reproduced on 4 x 6 high-quality microfiche which utilizes an exclusive image indexer. Printed author and subject indexes are included, and a demonstration workshop is available to train staff and students in the use of the collection. For further information about the microfiche edition of this *Annual Summary* or any previous *Summary*, contact the Alvina Treut Burrows Institute, Inc., P.O. Box 49, Manhasset, N.Y. 11030 (516) 869-8457.

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The International Reading Association attempts, through its publications, to provide a forum for a wide spectrum of opinions on reading. This policy permits divergent viewpoints without assuming the endorsement of the Association.

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Summary of investigations relating to reading

*July 1, 1984 to June 30, 1985**

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SUMMARIZES approximately 1000 reports of reading research identified between July 1, 1984, and June 30, 1985. The research studies are categorized into six major areas, five of which have been further subcategorized. As in previous years, the majority of studies reported were classified into the Physiology and Psychology of Reading area. Large subdivisions under that major category include Comprehension Research and Factors Related to Reading Disability. The largest subcategories in the Sociology of Reading are concerned with the content analysis of printed materials and the use of mass media. Under the Teaching of Reading category, the subcategory Testing remains the largest. A listing of other general bibliographies of reading research appears as the first major category of the present summary.

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*Mr. Peter Fisher, a doctoral candidate at the State University of New York at Buffalo, is responsible for the major work of identifying articles. Three other people helped the summary to function properly this past year. Margaret Collins is the efficient secretary, who keeps track of all the summary materials and is responsible for seeing that everything functions smoothly. Carol Roth and John Benson were the dependable work study students who photocopied, filed, and entered authors' names into the computer for alphabetizing. To all of those people, I am deeply indebted. Primary financial support of the annual summary is provided by the International Reading Association. Additional funding is supplied by the Alvina Treut Burrows Institute, Inc.

I. Summaries of reading research

BENTLEY, DIANA, & GOODACRE, ELIZABETH J. *British Register of Reading Research*, No. 9. Reading, Berkshire: University of Reading School of Education, 1984.

Lists of register of ongoing reading research and a register of completed research in Great Britain, all by title, author, institution, year started, and type of research. Over 50 abstracts of the completed research are included.

CRANNEY, A. GARR. Two decades of college-adult reading: Where to find the best of it. In Delryn R. Fleming (Ed.) *Proceedings of the Sixteenth Annual Conference of the Western College Reading and Learning Association*, Vol. 16. Whittier, Cal.: Western College Reading and Learning Association, 1983, 1-5.

Presents a bibliography of selected references on college adult reading literature. Between one and seven references are given for each of 25 different subject areas.

DURST, RUSSEL K., & MARSHALL, JAMES D. Annotated bibliography of research in the teaching of English. *Research in the Teaching of English*, December 1984, *18*, 417-438.

Categorizes and annotates research reports from the broad area of English. Included are published reports, ERIC documents, NIE reports, and listings from Dissertation Abstracts. The literature is divided into four broad categories: Writing, Language, Literature, and Teacher education. The first two of these are further subcategorized.

GOODACRE, ELIZABETH. Reading research in Great Britain—1982. *Reading*, December 1983, *17*, 139-146.

Identifies and annotates the reading research appearing in Great Britain in 1982. The literature is categorized under four major areas. Thrity reports are included.

GOODACRE, ELIZABETH. Reading research in Great Britain—1983. *Reading*, December 1984, *18*, 135-144.

Annotates research articles published in Great Britain in 1983. Included are research papers from the 19th UKRA Conference. The following categories appear: Reading standards and tests, Dyslexia and specific reading retardation, Reading development, and Reading materials and interests.

GOODACRE, ELIZABETH J. *Reading Research Review 1983*. Reading, Berkshire: University of Reading School of Education, 1984.

Presents a brief survey of research in the United Kingdom in 1983 and abstracts of research articles, books, and other sources. The research in the survey section appears under four major headings: Reading standards and tests, Dyslexia and specific reading retardation, Reading development, and Reading materials and interest.

MARSHALL, JAMES D., & DURST, RUSSEL K. Annotated bibliography of research in the teaching of English. *Research in the Teaching of English*, May 1985, *19*, 183-204.

Abstracts published and unpublished research in the teaching of English under the four major categories of Writing, Language, Literature, and Teacher education. The Writing and Language categories have been broken down into a number of subcategories.

Molloy, Brendan, & Greaney, Vincent. Reading in the Republic of Ireland – A bibliography. *Oideas*, 1982, *26*, 104-114.

Presents a bibliography of publications dealing with the teaching of reading and related issues in the Republic of Ireland. Research as well as other literature is included. Materials have been classified into the following major areas: Curriculum and curriculum evaluation, Social factors and reading, Psychology of reading, Teaching and learning of reading, Tests, and Summaries of reading research. Several of the major areas are broken into subcategories.

Seifert, Mary. IRA award-winning research. *The Reading Teacher*, December 1984, *38*, 322-328.

Summarizes the research receiving various IRA awards. The author, title, other citation information, are given along with the summary itself. Each is listed under the appropriate award.

Weintraub, Sam; Smith, Helen K.; Moore, Walter J.; Jongsma, Kathleen S.; & Fisher, Peter J.L. *Summary of investigations relating to reading, July 1, 1983 to June 30, 1984*. Newark, Delaware: International Reading Association, 1985.

Identifies and abstracts over 1,100 published research reports in reading. The literature is categorized under six major headings. Subcategories appear under the five major categories of Teacher preparation and practice, Sociology of reading, Physiology and psychology of reading, Teaching of reading, and Reading of atypical learners.

WSRA Research Committee. Research in Wisconsin. *Wisconsin State Reading Association Journal*, Spring 1984, *28*(3), 23-31.

Lists Master's and doctoral papers completed by graduate students at various Wisconsin institutions of higher education. Titles completed since 1980 are listed with the exception of Marquette University, where the listing is from 1978. Listings are given in alphabetical order by school.

II. Teacher preparation and practice

II-1 Behavior, performance and knowledge, practices, effectiveness

Pittman, Sherry I. A cognitive ethnography and quantification of a first-grade teacher's selection routines for classroom management. *The Elementary School Journal*, March 1985, *85*, 541-557.

Utilizes a cognitive ethnography approach in one first-grade classroom to study the relation between the teacher's thinking about her management plan and the strategies employed. The class consisted of 28 pupils, 18 of whom were Anglo, 3 Hispanic, 4 black, 2 Vietnamese, and 1 East Indian. On a reading readiness measure, 55% scored average. The teacher had 20 years of classroom experience and had divided her pupils into three ability level groups for reading. Data were collected over a five-month period with about 23 hours of interviewing and 30 hours of observation conducted biweekly. The focus was on teacher interaction with pupils who were doing seatwork while the teacher was simultaneously conducting small group instruction in reading. The teacher demonstrated a management plan which was very routine but capable of generating alternative courses of action. Generally, she formulated a course of action by selecting from among 12 routines developed over her years of experience. Based on data collected the following year, the routines were verified at a prediction rate of 92%. The management goal of encouraging pupil participation promoted the teacher's instructional goal of aiding pupils to be willing and independent readers. The teacher's goals and objectives provided a rationale for differential treatment of children based on their personality and level of development.

Shake, Mary C., & Allington, Richard L. Where do teachers' questions come from? *The Reading Teacher*, January 1985, *38*, 432-438.

Asks whether teachers use basal reader manuals as sources for their postreading questions and if this varies by reader group and teacher experience. Observed was small group reading instruction in six second-grade classrooms from six different schools, three K-8 parochial schools and three K-6 public schools. Teachers ranged from 2-22 years in experience; class size ranged from 16-34; there was a mean of three reading groups per classroom with a range of 2-5 groups. Three reading sessions per classroom were observed. Teacher questions were coded as being directly from the manual, a manual paraphrase, or teacher generated. Teachers, it was found, did not ask comprehension questions during or after reading in each instructional session. In the average and poor reader groups, teachers posed questions for only about one-half of the session (9 of 15, and 8 of 17 lessons, respectively), while questions were asked of higher level readers in 16 of 20 reading lessons. Results were drawn only from those sessions in which questions were posed. Teachers advanced more of their own questions (79%) than they extracted from basal sources (21%). Poor reading groups were asked the most teacher-concocted questions (83%), followed by average (78%) and high reading (76%) groups. When using the manual suggestions, teachers seemed to prefer to paraphrase, especially for the poorer readers. The most questions were posed to poor readers and the fewest in average groups; poorer readers received about 25% more questions. Teaching experience influenced neither the numbers nor the percentages of teacher-generated questions.

Shannon, Patrick. Teachers' self-perceptions and reification of instruction within reading instruction. In Jerome A. Niles & Larry A. Harris (Eds.) *New Inquiries in Reading Research and Instruction*. Thirty-first Yearbook of The National Reading Conference. Rochester: The National Reading Conference, 1982, 237-241.

Investigates the ways in which classroom teachers, reading teachers, and administrators view the use of commercial materials in reading instruction. Subjects were 539 classroom teachers, 26 reading teachers, and 26 administrators from one school district. A survey instrument of 20 items using a 5-point Likert scale, was designed to test four hypotheses: 1) Teachers are not involved in their reading instruction, 2) Teachers believe commercial materials can teach; 3) Teachers believe that the materials embody scientific truth; and 4) Teachers think they are fulfilling administrative expectations. Eighty-two percent of questionnaires were returned. Each group accepted each hypothesis at least moderately. Administrators agreed more with hypothesis 3 than reading teachers ($p < .01$). Classroom teachers agreed more than the other two groups with hypothesis 4 ($p < .01$). Classroom teachers preferred hypothesis 4 over the other three as a rationale for using commercial materials. Administrators preferred hypotheses 2 and 3 as a rationale. On follow-up interviews with 33 subjects, 70% of teachers stated they used commercial materials because of administrative expectations.

Shannon, Patrick. The use of commercial reading materials in American elementary schools. *Reading Research Quarterly*, Fall 1983, *19*, 68-85.

Presents a model to explain possible contributing factors to teachers' overreliance on published materials and reports a test of that model in one school district. The model, composed of three tenets (1) reading programs are organized according to the principles of formal rationality; 2) reading programs are predicated on reification of reading instruction; and 3) the combination of rationalization and reification forces alienation) was tested with a 20-item forced-choice questionnaire and three open-ended questions comparing the perceptions of classroom teachers, reading teachers, and administrators. An 82% return rate was achieved. Interviews were held with a sample of the respondents. Data collected supported each of the tenets of the model to a degree. Each of the four components of formal rationality was exhibited. Administrators reified reading instruction and materials more than did teachers, but many teachers also felt that commercial materials contributed significantly to instruction. Organization of the program did separate teachers from the control of their reading instruction, but alienation did not appear to contribute significantly to teachers' overreliance on commercial materials.

Ratekin, Ned; Simpson, Michele L.; Alvermann, Donna E.; & Dishner, Ernest K. Why teachers resist content reading instruction. *Journal of Reading*, February 1985, *28*, 432-437.

Reports classroom observations and analysis of materials used by eight content teachers in order to determine if reading instruction is incorporated into their procedures. Observational data were recorded at one-minute intervals during 40 classroom sessions. Detailed observational logs were transcribed, examined, and reduced to six categories in a matrix. Additionally, 10 content area reading methods texts were analyzed for recommended teaching practices; these practices then were compared to the observed classroom practices. While texts recommended a variety of organizational settings and methods, teachers used whole class organization and relied heavily on lecture and monitoring of seatwork. Teachers devoted most time to presenting information, and less to readiness, whereas texts stressed readiness activities. Observations determined that the use of one text was predominant, little use was made of adjunct aids, and the teacher, rather than the text, was the primary source of information. Textbooks, however, recommended varieties of texts and more interactive use of the texts.

Garner, Ruth. Rules for summarizing texts: Is classroom instruction being provided? *Journal of Educational Research*, May-June 1984, *77*, 304-308.

Seeks to discover if explicit instruction in text summarization is being provided by asking six elementary and six secondary teachers to audiotape an ideal lesson on summarization of text. Transcribed tapes were coded and instances of instruction about five rules of text condensation were counted. Only three teachers mentioned any of the rules in their lessons. The two most common emphases across the nine lessons in which no mention of rules was made appeared to be facts and terms. Very little was done in eliciting from students what was important, what was unimportant, and how important information might be integrated, restated, or paraphrased.

Weinberg,Renee K. How consistent is the clinical diagnosis of reading specialists? *The Reading Teacher*, November 1984, *38*, 205-212.

Compares the diagnoses and prescriptions for instruction of three reading disability cases by 8 reading specialists and 8 graduate students. The reading specialists had an average of 10 years experience; graduate students were enrolled in a Master's degree program for reading specialist certification. Of the three cases, the second was a slightly altered simulation of the first. Specifically, the investigator sought to determine what types of diagnostic information reading specialists used in analyzing a case, how diagnoses were affected by the selection of relevant data, and the influence of training on the consistency of clinical diagnoses. Graduate students were more consistently in agreement on salient clues for diagnosis than were reading specialists. When the same case was diagnosed in original and simulated conditions, graduate students were more consistently in agreement across cases both as a group and individually; while specialists showed less agreement, the researcher reported that their consistency in diagnosis was higher than in previous studies. In the repeated case, graduate students were in 100% agreement on two out of three categories of instructional recommendations (instructional level and teaching approach) and in 62.5% agreement for recommended instructional setting. For all three prescription areas, agreement was lower for the specialists. Diagnosis of the third case resulted in more consistency across groups, but the prescriptions in the areas of instructional level, teaching approach and instructional setting were disparate. The researcher noted that the similarity of training and coursework of the graduate students may have contributed to their uniformity.

HOGE, ROBERT D., & BUTCHER, ROBERT. Analysis of teacher judgments of pupil achievement levels. *Journal of Educational Psychology,* October 1984, *76,* 777-781.

Analyzes the accuracy of 12 teachers' judgments of the achievement test performances of their pupils and the extent to which pupil gender and ability operate as biasing factors in the judgments. Teachers of grades three to eight provided rating measures for each of 298 pupils, including: (a) an estimate of grade-equivalence score on the *Gates-MacGinitie Reading Test,* (b) an estimate of confidence in that rating made on a 5-point scale; (c) a rating of basic intellectual ability; and a rating of the pupil's motivation to do schoolwork. Standardized reading achievement and IQ tests were administered to the pupils. Multiple regression analysis revealed a high level of accuracy for the achievement judgments compared with test scores. There was no evidence that pupil gender functioned as a biasing variable in the judgments, but there were indications that the pupil ability variable was a source of bias for some teachers.

RUDDELL, ROBERT B. Knowledge and attitudes toward testing: Field educators and legislators. *The Reading Teacher,* February 1985, *38,* 538-543.

Examines the knowledge and attitudes toward testing of field educators and legislators who make decisions based on interpretation of test data. Three questions guided the research: 1) What test knowledge do educators and legislators possess?, 2) How are test data used in instructional decision making?, and 3) What attitudes toward test use are held by educators and legislators? Interview data were collected from 38 field educators (18 teachers, 12 principals, and 8 district office personnel) from seven diverse California school districts, as well as from 5 legislators or their aides, the chief legislative analyst for education, and the former chair of the Senate Education Committee. In addition, the chief officer from the Office of Program Evaluation and Research in the State Department of Education was interviewed. All participants were shown a set of scaled test scores from the reading skill area of the California Assessment Program for two different years. Subjects were asked to contrast scores and to interpret the differences. Across all groups, there was little understanding of measurement concepts. Only 11% of the teachers, 17% of the principals and 37% of central office personnel understood the concept of standard error of measurement. One legislator correctly interpreted the scores. Findings from the study also revealed that standardized tests have little impact on instructional decisions. Greater use is made of such tests in schools and districts to assess progress and identify achievement trends. Attitudes toward test use appeared to change with distance from the classroom. While most teachers wanted tests that could diagnose students' strengths and weaknesses, principals and district personnel wanted tests to provide program evaluation and to assess district-wide trends. Legislators' expectations for test use ranged from measurement of broad educational goals and objectives to diagnosis of reading problems for individual students. Recommendations for test consumers are included.

DUPUIS, MARY M., & FAGAN, EDWARD R. The basic skills of prospective teachers: How well do they read/write/speak? *Journal of Classroom Interaction*, Summer 1983, *18*(2), 20-27.

Describes the development and implementation of assessment procedures for verifying the basic skills (reading, writing, and speaking) of preservice teachers enrolled in the Secondary Education program at a university. The *Nelson-Denny Reading Test*, Form D, was selected as the test of reading ability. To determine professional reading and writing skills, a criterion-referenced test was developed using an education journal article which required students to demonstrate understanding of professional vocabulary, to answer literal and inferential level questions, and to interpret information found in tables. In addition, students were asked to respond to the journal article in writing, demonstrating ability to evaluate. Assessment of speaking competency was conducted by videotaping prospective teachers speaking for five minutes to a group of peers on a professional topic of their choice. The researchers reported acceptable reliability for each measure. Validity was claimed based on extant literature and, in the case of the Nelson-Denny, wide use. Using pilot data, requisite cut-offs were established for each assessment technique. The percentage of students successfully completing each of the four assessments on the first try was 70%. Analysis of variance by sex favored females both in general predictors like GPA and SAT and for the specific skills assessments. Course grades, in general, favored males. Coefficients were generally significant between these assessments and SAT scores and course grades. Intercorrelation coefficients among the basic skills assessments were weakest for reading-speaking (.16-.19) and strongest for reading-writing (.32-.36).

STRICHERT, STEPHEN S., & WARE, ADELAIDE M. Perceived reading competencies of teachers of learning disabled students. *The Florida Reading Quarterly*, June 1984, *20*(4), 17-21.

Assesses 279 learning disabilities teachers' self-perception of their competencies in teaching reading. All 585 Dade County Florida teachers of learning disabled students were sent a list of 37 competencies related to General Knowledge, Assessment, and Instruction in reading. Respondents rated themselves on each competency on a four-point scale, ranging from exceptionally competent to no knowledge. At least 90% of the respondents rated themselves with a 1 or a 2 (i.e., competent) on 25 items. On no competency did 50% or more of the teachers rate themselves with a 3 or a 4 (incompetent). The item receiving the lowest rating of perceived confidence, "Understands the skills associated with problems in structure and syntax," resulted in only 16% of the teachers rating themselves as either 3 or 4 (low competence). In general, teachers rated their competence in a generalized manner; the range of mean ratings was .4. The mean number of reading courses taken by the respondents was 4.1; the mean number of years of experience was 6.0. Significant coefficients were found for both number of reading courses taken and number of years experience with perceived competence in teaching reading.

ECKERT, MARY SUE, & WOLLENBERG, JOHN. Competency model for preservice teachers in a basic skills course. *Reading Horizons*, Summer 1984, *24*, 238-242.

Assesses the effect of six predictor variables, high school grade point average (GPA), ACT composite score, vocabulary score, reading comprehension score, university major, and attitude toward reading, on four criterion-referenced tests administered to 61 prospective teachers enrolled in a basic skills course in teaching reading. Vocabulary and reading comprehension were assessed by the *Nelson-Denny Reading Test;* attitude toward reading, by the *Rhody Secondary Reading Attitude Assessment*. The four criterion-referenced tests assessed information on linguistic-cognitive models and reading readiness, teaching approaches, word recognition skills, and comprehension skills and research and study skills. A total score was also computed from the four tests. Significant positive correlation coefficients were found between individual and total scores on the criterion tests and the predictors of ACT Composite, vocabulary, high school GPA, and comprehension. A significant negative coefficient of correlation existed between criterion-reference scores and the predictor variables of major (Elementary, Special Education, Other) and attitudes toward reading. The 48 potential elementary majors had the lowest mean scores on all five test scores.

STRADER, SUSAN G., & JOY, FLORA C. Assessment of content text difficulty by elementary and middle school personnel. In George H. McNinch (Ed.) *Reading in the Disciplines*. Second Yearbook of the American Reading Forum. Athens, Georgia: The American Reading Forum, 1982, 8-9.

Investigates the ability of teachers, administrators and supervisors to rank texts in order of difficulty. Subjects (n = 177) rank ordered five 100-word passages in order of reading difficulty in each of the content areas of science, social studies, language arts, and mathematics. Difficulty levels of the passages were verified using the Fry Graph, the Spache, and the Dale-Chall Readability Formulae. Subjects were best at ranking social studies texts, with math, science, and language arts texts next best, in that order. Classroom teachers were better than other school personnel at the task, while those responsible for self-contained classrooms were better than those responsible for departmentalized or special classes (no significance levels reported). The number of reading/language arts courses taken by subjects had no effect on performance.

AVANN, PAT. Information skills in primary schools. *Education Libraries Bulletin*, Spring 1984, *27*(1), 1-14.

Investigates instruction in library information skills in two British primary schools. Observations and interviews were used to collect data. Observations were for one school day. In both schools, little indication was seen of the use of book or library skills other than a directed use of dictionaries. Additional data were collected on topic work (extended work on a selected theme) through visits to top junior classrooms over six weeks. Much topic work was reported as undirected by the teacher, and no evidence was found that children used indexes, page numbers, or other skills when conducting topic work. There was no evidence that children had been helped to compare books on a topic or could use such skills as date of publication in evaluating the appropriateness of a book. A description of activities utilized under the aegis of a task force to correct deficiencies in library skills is given. An inservice course, developed to help teachers with reference skills, is also described.

SPIEGEL, DIXIE LEE, & WRIGHT, JILL D. Biology teachers' preferences in textbook characteristics. *Journal of Reading*, April 1984, *27*, 624-628.

Surveys high school biology teachers to determine what text characteristics are important when choosing biology texts for students, how teachers use these texts themselves, and how they expect their students to use them. Usable questionnaire responses were received from 640 teachers. Teachers responded most favorably to items on the physical features of the text, followed by responses to content features and, finally, to items on features facilitating learning from text. Teachers were more responsive to items on text features used after the reading than to text features used before a reading assignment. Teachers reported using the textbook for guiding class discussion but not for organizing or choosing what they will teach to students. Enrichment functions of texts were of less importance to teachers than were content functions.

JOHNSTON, PETER; ALLINGTON, RICHARD; & AFFLERBACH, PETER. The congruence of classroom and remedial reading instruction. *The Elementary School Journal*, March 1985, *85*, 465-477.

Examines the congruence between classroom and remedial reading instruction. Complete data, collected by means of structured interviews, were obtained on 30 classroom teachers, 19 reading teachers, 33 children, and 12 supervisors. Pupil grade level distribution covered grades one to eight with numbers varying from one child at sixth grade to nine at grade three. A total of 13 schools in 10 school districts were involved. To investigate congruence, teachers and specialists were asked to describe their programs in general, the program of a given child in particular and the materials used with that target subject, and a statement of goals for the pupil. Children were asked their perception of each instructional program. It was found that 30% of pupils were working in the same materials in the two settings. In other cases, the materials used in the two programs frequently called for very different coping strategies as well as practice on different words and syntactic structures. Relative to goals, remedial teachers tended to report a greater stress on comprehension while classroom teachers stressed decoding more. Frequently the two teachers indicated different instructional goals for the same pupil on the same day. A 57% degree of incongruity was found between the two. According to both pupils and teachers, more reading was done in regular classrooms than in the remedial setting. Generally, pupils were unable to express adequately or were unaware of the purposes of the activities they were engaged in. Half of the reading teachers could not identify the basal reading series used in the classrooms, and more than two-thirds could not identify the specific reader or level that the child was using in the regular classroom. For classroom teachers, only 20% could identify the series being employed in the remedial class, and only 8% knew the exact book.

HOFFMAN, JAMES V., & KUGLE, CHERRY L. A study of theoretical orientation to reading and its relationship to teacher verbal feedback during reading instruction. *Journal of Classroom Interaction*, Winter 1982, *18*(1), 2-7.

Examines the relation between 35 second- and third-grade teachers' theoretical orientations to reading and the verbal feedback they offer students during guided oral reading. Theoretical orientations were assessed using the *Theoretical Orientation to Reading Profile* (TORP) and the *Propositions About Reading Instruction Inventory* (PRI). Group oral reading instruction of the teachers was taped, and responses to miscues were analyzed using the *Feedback to Oral Reading Miscue Analysis System* (FORMAS). Follow-up interviews were conducted with a subsample of the teachers, with teachers commenting on their interaction strategies and discussing their responses and actions to each miscue. A significant positive relation was found between scores on the TORP and the linear skills component of the PRI (r = .49). A significant negative coefficient was found with the natural language conception items (r =-.47). Percentages of the number of times gave no feedback to miscues with low meaning change, the number of times teachers waited longer than three seconds to respond to miscues with high meaning change, and the number of times teachers gave contextual cues to miscues were correlated with scores from the TORP and the PRI. The only variable significantly associated with beliefs was the tendency to wait to give feedback to miscues with high meaning change. Data from interviews offered more insights to teacher beliefs than did either the TORP or the PRI. Beliefs seemed to be a function of student ability and situational context.

HOFFMAN, JAMES V., & CLEMENTS, RICHARD. Reading miscues and teacher verbal feedback. *The Elementary School Journal,* March 1984, *84,* 423-439.

Explores the relation between pupil miscues when reading orally and the verbal feedback offered by teachers during group instruction. The subjects were eight second grade teachers and a total of 16 of their regular reading group sessions (two teachers taught one group each, four teachers taught two groups, and two teachers taught three groups). Children's miscues and teachers' responses to those miscues were coded using the research-designed FORMAS (Feedback to Oral Reading Miscue Analysis System) taxonomy. Approximately 1000 miscues were observed and coded from classroom videotapes. Reading accuracy for students in low-achieving reading groups was 89%, while accuracy for students in the high reading groups was 95%. Preliminary finding indicated that oral reading is a frequently-occurring part of reading instruction at this grade level, with 66% of the low groups' time spent reading aloud and 52% of the high groups' time. Eleven percent and 9% of the instructional time was given to verbal feedback to miscues for the high and low groups, respectively. Results indicated that high- and low-skilled readers were different in their miscue patterns and subsequent reading strategies. In addition, high- and low-skilled readers were exposed to different teacher verbal response patterns to their miscues. The researchers indicated that results can be interpreted in terms of a mutually adaptive cycle between teacher and groups which serves to reinforce existing patterns of miscue and feedback behavior.

HOFFMAN, JAMES V.; O'NEAL, SHARON F.; KASTLER, LESA A.; CLEMENTS, RICHARD O.; SEGAL, KERRY W.; & NASH, MARCIA F. Guided oral reading and miscue focused verbal feedback in second-grade classrooms. *Reading Research Quarterly,* Spring 1984, *19,* 367-384.

Investigates the nature and effects of teacher-pupil interaction patterns surrounding reading miscues occurring during guided oral reading lessons. The subjects were 22 second grade teachers and the pupils assigned to either their highest (N = 152) or lowest (N = 157) reading groups. Audiotapes of reading group lessons were collected biweekly over a 10-week period. Verbal interactions were coded using the *Feedback to Oral Reading Analysis Systems* (FORMAS) taxonomy. In addition to the interaction patterns, data were also collected on both pre- and post-reading achievement levels, reading rate, and reading accuracy. Over 4500 miscues were recorded and analyzed for teacher-feedback characteristics. Among the findings were that the distribution of reactions to miscues were statistically significant across all pupils ($p < .001$), and there was a statistically significant two-way interaction between reaction type and ability groups ($p < .005$). The more skilled readers exhibited a higher proportion of continuations and immediate self-corrections following their miscues, while the less skilled paused more and were more likely to have no opportunity to respond to their own miscue (i.e. teacher interrupted in some way before the pupil could respond). There was no statistically significant difference between the type of feedback provided and the two ability groups. There was, however, a statistically significant interaction ($p < .005$) between feedback type and meaning change on insertion, omission, and substitution miscues. The proportion of "no verbal feedback" from the teacher tended to decrease as the degree of meaning change increased. Overall, teachers appeared to be adjusting their manner of response to miscues based on qualitative characteristics of the miscue rather than using a simple pattern of correction. Multiple regression analyses indicated that achievement levels, error rate, and teacher verbal feedback variables showed clear and strong predictive relationships to pupil reading miscue and reaction patterns. Certain teacher feedback behaviors were shown to be significantly related to a number of pupil miscue and reaction patterns. For example, teachers who offered the highest levels of terminal feedback had pupils who exhibited the highest levels of hesitation.

KUNKEL, DOROTHY A. Teacher interruption behaviors during intermediate grade oral reading. In Linda B. Gambrell (Ed.) *Reading: Process, Instruction and Assessment.* College Park, MD: The State of Maryland International Reading Association, 1984, 37-47.

Tabulates and describes the responses of three fifth-grade teachers to the oral reading errors of their pupils. A total of 32 top-group (good) readers and 27 lowest-group (poor) readers were included. Teachers audiotaped their regular group instruction of the lowest- and top-reading groups. Teacher interruptions were scored for point and direction of interruption. Teachers interrupted poor readers about 25% of the time at the point of errors, and good readers about 19% of the time. The greatest proportion of interruptions were ones in which the teacher provided the correct pronunciation of a word.

LASS, BONNIE. Do teachers individualize their responses to reading miscues?: A study of feedback during oral reading. *Reading World,* March 1984, *23,* 242-254.

Designs research to determine if teachers respond differentially to different types of miscues. Using 19 second-grade classrooms in 10 schools, the author observed an average reading group in each classroom two times. Pupil miscues and teacher responses were collected, categorized, and coded. Teacher responses were categorized as: supplies word, disregards miscue, provides instruction, requests rereading, and comments on the miscue. Pupil miscues were categorized as: wild guess, letter only, context and letter, meaning based, and word refusal or hesitation. Eighty instances of teacher disregard of miscues were noted, 55 in response to meaning based miscues, and 19 for letter plus context miscues. For 101 instances of the teacher providing instruction, 19 were given for meaning based miscues, and 82 were in response to letter only miscues. There were 69 requests for rereading with 29 being in response to letter plus context and 24 in response to letter only categories. For the word refusal or hesitation category, the most frequent teacher response was to supply the word.

THOMAS-YOUNG, JUNE. Oral reading practices reported by classroom teachers of grades 1-6. In George H. McNinch (Ed.) *Reading Research to Reading Practice.* Third Yearbook of The American Reading Forum. Athens, GA: The American Reading Forum, 1983, 98-100.

Investigates teachers' practices related to reading through a questionnaire survey. A questionnaire concerning the frequency, assessment, purposes, and procedures in oral reading was distributed to 27 schools, and completed by 170 teachers in grades one through three and 155 teachers in grades four through six. Among other results 57% of primary teachers and 42% of intermediate teaches reported daily group oral reading. Individual oral reading to the teacher was reported infrequently. Assessment was most commonly mental notes made by the teacher of a reader's difficulties, and the most common purpose was to check word attack skills. When an error was made, primary teachers most commonly suggested sounding the word out, while intermediate teachers most frequently told the child the word. Most teachers reported that silent reading usually preceded oral reading.

JOBE, RONALD, & LABERCANE, GEORGE. Reading aloud in the classroom. *Reading-Canada-Lecture,* October 1983, 2(3), 30-37.

Surveys the read-aloud practices of classroom teachers. Teachers surveyed were those enrolled in summer school and extra-session courses in reading, language arts, or children's literature at two Canadian universities. A questionnaire was developed to assess such variables as number of courses taken in reading, language arts, and children's literature, grades taught, school size, age, sex, and amount and quality of reading aloud carried out by the respondents. To analyze the data, the following questions were posed: 1) Do teachers read aloud to their students? 2) How much time was spent reading aloud? 3) What kinds of reading were undertaken by classroom teachers? 4) Why do teachers read aloud to their students? 5) How do teachers find the time to read aloud to their students? 6) On what basis are books selected to be read aloud? The majority of the respondents were experienced female teachers who taught in the primary grades in large schools. All respondents indicated they read aloud in varying amounts each day. Reasons for reading aloud included enjoyment, developing reading skills, gaining information, expanding experiences, and maintaining discipline and control. Specific time was set aside for reading aloud. Books were selected on the basis of interest to students and teachers, appeal of the book, and recommended sources. In view of the data, there appeared to be no planned approach to a varied literature program.

BUNBURY, RHONDA; CORCORAN, BILL; & ROSS, KEN. Power/choice over the English curriculum. *Australian Journal of Reading*, November 1984, *7*, 181-195.

Surveys 492 Australian primary and secondary teachers from government, parochial and independent schools to determine who controls the English curriculum. Specifically, the survey asked teachers to identify who determines the English syllabus, the type of class materials chosen, the scope and period of books selected, and the choice of fiction. Results are reported by grade level for each of grades 5, 7, 9, and 11. The majority of teachers at all levels felt that they determine the English syllabus both directly as individuals and through groups of teachers working together. Whereas lower grade teachers assigned more authority to the principal, upper levels teachers (Grade 11) indicated that heads of departments or coordinators were most responsible for determining the syllabus. The study of specific texts (as opposed to wide reading) increased with years of schooling, but the majority of teachers in grades 5, 7, and 9 reported they attempted to combine a specific text with wide reading. Most teachers at all levels reported preference for concentrating on modern rather than classical literature. The use of programmed reading materials, basal readers, a classroom library, small sets of fiction, and pupils' free choice of reading materials decreased with years of schooling. The use of class sets of books and the pupils' own copies of selections from the reading list increased. Teachers at all levels felt that they were responsible for selecting specific texts to be studied.

HOOVER, NORA LEE. Teachers' self-reports of critical decisions in teaching reading. *The Reading Teacher*, January 1985, *38*, 440-445.

Reports results of a survey of 24 kindergarten through seventh grade classroom teachers to determine the decisions they make about teaching reading. Teachers were asked to write in response to an open-ended inquiry about the decisions they make to teach reading effectively. They were then asked to rank order the three decisions they considered most critical to student achievement. Responses were analyzed and categorized by two independent scorers. The researcher then analyzed critical decisions for the proportion occuring at the planning, interactive, and evaluation stages of instruction. Pupil placement decisions, ranked in first or second place by 75% of the teachers, were viewed as being most critical. Decisions related to individual student needs were ranked second in importance. Decisions in the area of methods and materials were ranked third. Teachers perceived themselves as making the majority of decisions at the planning phase.

MASZTAL, NANCY B., & SMITH, LAWRENCE L. Do teachers really administer IRIs? *Reading World*, October 1984, *24*(1), 80-83.

Surveys 125 elementary teachers in five schools in Florida, Illinois, Mississippi, and Tennessee to determine if they use informal reading inventories (IRIs) in their classrooms. Of the teachers who responded to the questionnaire, 76% had taught six or more years, 48% had Master's degrees, and 68% had taken three or more reading courses. While 81% of the respondents indicated familiarity with IRIs and 78% indicated they knew how to administer them, 54% reported they actually administered IRIs in the classroom. Of those using IRIs, 44% used the IRI accompanying their basal program, 27% used other commercially published IRIs, 24% constructed their own, and 5% used an IRI constructed by other teachers.

REAY, DAVID G.; VON HARRISON, GRANT; & GOTTFREDSON, CONRAD. The effect on pupil reading achievement of teacher compliance with prescribed methodology. *Research in Education*, November 1984, *32*, 17-23.

Compares the extent to which first-grade teachers adhered to sets of experimental materials and procedures and the resultant effect on children's reading performance scores. During the first year of investigation, eight experimental first-grade classrooms were compared with four control classrooms in one school district in Utah. Treatment group teachers were trained in an experimental program which emphasized sight words, letter sounds, blending, decoding, and oral reading. In addition, the experimental program included emphasis on "companion study," a type of peer-tutoring. Results after the first year showed that the treatment groups scored significantly higher on the criterion-referenced posttest. During the second year, two treatment classes (n = 49) were compared with two control groups (n = 46). In addition to significant differences in mean scores between experimental and control classes, the researchers noted significant differences between the two classes receiving treatment, as well as between the two control classes. Observation of teacher compliance with suggested procedures indicated that the teacher of the higher-achieving experimental group (in which 83% of the pupils scored above the 75th percentile compared with 56% in the lower-achieving treatment group) followed the teaching design in all its stages. The teacher of the lower-achieving group ignored certain aspects of the method, including mastery checks, systematic review, and the companion practice.

MANGANO, NANCY G., & BENTON, STEPHEN L. Comparison of question-response-feedback interactions during basal reader instruction. *Journal of Educational Research*, November/December 1984, *78*, 119-126.

Examines differences in interactions between two sets of fourth-grade teachers and their average reading groups during the questioning period following the reading of a basal story. Eighteen teachers and 299 pupils were randomly assigned to one of three instructional conditions: 1) a question-distinguishing condition, which required teachers to ask comprehension questions during discussion following reading assignments; 2) a question-asking condition, in which teachers taught pupils to distinguish types of comprehension questions and helped children generate those questions following a reading assignment; and 3) a control condition in which teachers followed regular classroom procedures. All children were administered the reading comprehension subtest of the *SRA Achievement Series*. All teachers audiotaped three basal lessons following training. Tapes were transcribed and teacher question types, pupil answers, and teacher probes were recorded in sequence on the *Group Reading Interaction Pattern Observation Instrument*. Analysis of covariance with SRA scores as the covariate yielded no significant difference between classes within the question-distinguishing or question-asking conditions; however, there was a significant difference between classes within the control condition. Quantitative analysis of the two teachers with the highest adjusted class mean score (HM) and the two teachers with the lowest adjusted class mean score (LM) revealed that the HM teachers tended to ask more text-based questions, provided more positive feedback, probed more often, and used more probe types than did LM teachers. Further, they tended to stick more closely to the gist of the story when asking reader-based questions.

MARCH, DAVID D. The classroom effectiveness of Teacher Corps graduates: A national assessment. *Journal of Classroom Interaction*, Winter 1979, *15*(1), 25-31.

Contrasts the teacher performance and effectiveness of 82 Teacher Corps graduates with those of matched control teachers, and analyzes the relation of teacher background, teacher education program, and teacher performance to pupil growth in reading and self-concept. Data on teachers were gathered by means of a questionnaire and the *SRI Classroom Observation Guide*. Pupils were administered the *Metropolitan Achievement Test* and the *Piers-Harris Self-Concept Scale*. Eight pupils from each teacher were also selected randomly for 15-minute classroom observations. Teacher Corps graduates were most different from control group teachers in developing relevant curricula, using community resources, parent involvement, positive attitude about reading, and causes of poverty in society. There were no significant differences on reading measures, but children in classrooms of Teacher Corps graduates in grades 4-6 had higher self-concept scores and expressed feelings of greater self-worth. Canonical correlation analyses demonstrated the relation of teacher performance variables to total reading gain and total self-concept gain.

RUDDELL, ROBERT B. A study of teaching effectiveness variables of influential teachers. In Malcolm P. Douglass (Ed.) *Claremont Reading Conference Forty-Seventh Yearbook*. Claremont, Cal.: Claremont Reading Conference, 1983, 57-70.

Presents an interactive model of the instructional process and reports a study that contrasted the teaching effectiveness of influential teachers with other teachers by examining specific features of a controlled learning episode. The study contrasts four teachers who had been identified as influential and four other, randomly selected, teachers. All eight had been participants in a study the author conducted with 24 teachers and 522 pupils in 1970-71. The influential teachers were identified nine years later by a questionnaire administered to the 132 students remaining in the district who had participated in the original study. The present study used as data videotaped lessons that had been conducted by the eight teachers in 1970-71. Each teacher taught a group of six children a lesson based on a children's book. The instruction was analyzed using the *California Teaching Effectiveness Scale* to assess four elements of a learning episode on a 7-point scale. The four elements are: 1) classroom communication, 2) view of self, 3) managing style and motivation, and 4) problem-solution process and learning attitude. The present study also examined teachers' levels of questioning and questioning strategies. There were three levels of questions examined: actual, interpretive, and applicative. There were two question strategies observed: extend, a question designed to provide more information on the original question; and clarify, a question asked with the intent of correcting a misinterpretation or to build further understanding. The influential teachers rated more highly than the other teachers on all four scales and total score of the observation scale, but only significantly so for view of self, problem solution and learning attitude, and total teaching effectiveness. There was very little difference between the two groups in levels of questions asked. The two groups did not differ significantly in the use of questions intended to extend, but the influential teachers did ask more questions intended to clarify than did the other teachers.

KIERSTEAD, JANET. Outstanding effective classrooms. In Malcolm P. Douglass (Ed.) *Claremont Reading Conference Forty-Eighth Yearbook*. Claremont, Cal.: Claremont Reading Conference, 1984, 121-133.

Reports the findings of a study in which three outstanding teachers and one other teacher were observed for approximately 30 hours over a period of five months. Outstanding teachers were selected on the bases of nominations, their students' test scores, and observations by the experimenter. States that the outstanding teachers demonstrated a feeling of responsibility for helping their students learn, expended efforts to acquire alternative classroom strategies, and established a system of classroom management in which responsibility and control are shared with students. Outstanding teachers 1) often designed their own activity based curriculum, and 2) built environments for ensuring that students knew how to work independently, were accountable for accomplishing what was expected of them, and could be readily guided as they progressed. Concludes that outstanding teachers believe that all students can learn, and that they learn best when they are actively engaged in interesting work.

HALLER, EMIL J., & WATERMAN, MARGARET. The criteria of reading group assignments. *The Reading Teacher,* April 1985, *38,* 772-781.

Investigates the thought processes of 60 fourth, fifth, and sixth grade teachers as they made reading group assignments for their pupils. Each teacher was asked to: 1) consider present pupils and to construct the reading groups they would recommend to next year's teacher; and 2) rank the three worst readers in one group, the three best readers in the next lower group, and to compare the pairs formed, indicating why these six, who were close in reading abilities, were placed in different groups. Coding rules were developed to classify teachers' responses. Comments from teachers fell into five categories: reading ability, behavior/personality, academic competence, work habits, and home background. Teachers varied in the amount of emphasis given to each area, with reading ability receiving the most attention in placement. When asked to justify their placing of the pairs at the margins of the two groups, teachers used attributes other than reading skill in reaching decisions. Work habits and behavior/personality variables entered in. Decisions which were hard to make about placement included decisions where skills were quite disparate, and where pupils had the skills required for a group, but lacked another trait, such as motivation, necessary for that group.

BORKO, HILDA. Teachers' decision policies about grouping students for reading instruction. In Jerome A. Niles & Larry A. Harris (Eds.) *New Inquiries in Reading Research and Instruction.* Thirty-first Yearbook of The National Reading Conference. Rochester: The National Reading Conference, 1982, 220-226.

Investigates factors involved in teachers' decisions concerning grouping children for reading instruction. Descriptions of 32 hypothetical pupils were constructed by systematically varying five pupil characteristics: reading score on a standardized test; self-correcting behavior during oral reading; class participation; social competence; and classroom behavior. Subjects were 40 student teachers and 27 elementary school teachers who acted as supervising teachers for student teaching practice. Subjects were administered an inventory which assessed their conceptions of reading along five dimensions: linear skills; basal text; natural language; interest; and integrated curriculum. They were then asked to place the 32 hypothetical pupils into three reading groups of about equal size as for a second grade classroom. After this task a questionnaire was completed concerning criteria that had been used for placing pupils in groups. It was found that student teachers had a more pupil-centered conception of reading, and teachers a stronger content-centered conception of reading ($p < .001$). Virtually all participants characterized their reading groups as high, medium, and low. Almost all subjects used reading scores and self-correction during oral reading in forming the groups. Teachers were more likely to take class participation into account than student teachers ($p < .001$). All five pieces of information had a significant effect on pupil placement for only three subjects.

CARTER, SYLVIA; LONG, JUDY; & BLYTHE, HAL. Teacher evaluation and interpretation of elementary grade pupils' reading interests: Analysis and survey. In George

H. McNinch (Ed.) *Reading Research to Reading Practice.* Third Yearbook of The American Reading Forum. Athens, GA: The American Reading Forum, 1983, 108-110.

Examines selected teacher preparation texts and surveys inservice and preservice elementary grade teachers to determine emphasis on and knowledge and use of children's reading interest measures. Eight textbooks currently used in introductory reading methods courses were analyzed to determine recommended procedures in interest assessment, and citations supporting such procedures. The amount of text devoted to this area ranged from 0 to 6.4%, with six textbooks devoting 1.5% or less. Only one book had more than 11 citations, giving 168 in all. A questionnaire was designed to assess use (or projected use) of interest evaluation procedures, and administered to 88 preservice and 38 inservice teachers. Although 98% of preservice teachers said they would administer an interest measure, only 68% of inservice teachers actually did so. Teachers were asked to respond to whether they would/did assess interests by an inventory, interview, questionnaires, sentence completion, drawings, and/or observations. Questionnaires were chosen most frequently by preservice teachers, and least frequently by inservice teachers, who used drawings most frequently.

II-2 Beliefs/Attitudes toward reading

FITZGERALD, JILL. Teachers' views of reading research. *Reading World,* October 1984, *24*(1), 1-9.

Surveys 455 teachers from the United States and Canada to determine their views and attitudes toward research in reading. Thirty college professors were asked to distribute a two-part questionnaire to their graduate reading courses. Part I of the questionnaire required subjects to write their own definitions of reading research. Part II asked teachers to respond on a 7-point Likert-type scale to 28 statements related to the forms, content, and functions of research, as well as attitudes toward it. Teachers' definitions of reading research were examined both by studying responses to a subset of items that tapped methods and content of research as well as by analyzing a random sample of the open-ended definitions (n = 50). Analyses indicated that teachers tended to accept controlled experiments as research to a greater extent than historical studies or literature reviews. In addition, results indicated that teachers tended to agree that comparisons of methods of teaching reading and investigations of actual reading instruction are research activities more than sociological concerns such as library usage. Respondents tended to perceive a variety of legitimate functions of reading research. Strongest agreement was with research on reading efficiency and understanding the reading process. Overall, teachers tended to have favorable attitudes toward reading research, moderately positive attitudes toward reading researchers and the value of reading research. Teachers had a substantially positive view about their roles in reading research. Results of the questionnaire were remarkably similar for a group of 50 teachers not enrolled in college courses.

DUFFY, GERALD G., & ANDERSON, LINDA. Teachers' theoretical orientations and the real classroom. *Reading Psychology,* 1984, *5*(1-2), 97-104.

Investigates the beliefs and conceptions about reading held by classroom teachers when measured both outside the classroom context and when actually teaching. Specifically, the study addressed: 1) How do teachers think about reading and reading instruction?, 2) Do teachers have conceptions of reading and, if so, what is the nature of these conceptions and how do they interact with other aspects of schooling?, and 3) What kinds of decisions do teachers make while teaching and how do these decisions relate to the teacher's conceptions? A 45-item researcher-designed instrument was administered to each of 128 graduate students with teaching experience to determine the set of beliefs with which they most closely aligned. Teachers tended to respond in two general categories: "content-centered" or "pupil-centered," with older, more experienced teachers tending to reflect more "content-centered" conceptions (alignment with basal texts and linear skills), while younger, less-experienced teachers tended toward "pupil-centered" conceptions (encompassing natural language, interest, and integrated curriculum models). Field studies were conducted over a period of three years (1977-80) to observe the relation between conceptions and instructional practices. The 24 teachers who were selected for observation represented definitive theoretical patterns, different school contexts, and/or curriculum demands. Teacher report data came from formal and informal interviews, and teacher comments. Teacher observational data came from researcher fieldnotes, transcripts of audiotapes of reading periods, and analysis of pupil activities during the reading period. Three sources of teacher report data and three sources of observational data were required to substantiate any finding. To determine possible changes in conceptions and practices, during the third year of the study three teachers from the first year were observed as they initiated a new reading program. Findings indicated that observed teachers possessed a variety of beliefs about reading as measured by the instrument, but that the relation between teacher practices and their belief systems about reading was not strong. Many other factors besides theoretical models of reading influenced the teacher's decisions, e.g., grade level and the perceived ability of children affected teacher conceptions. In addition, instruction appeared to be based more on the basal textbook than on the espoused reading theory.

MEYER, VALERIE, & KEEFE, DONALD. Models of the reading process held by *ABE* and *GED* instructors. *Reading Horizons*, Winter 1985, *25*, 133-136.

Explores the theoretical construct of reading held by instructors of adult disabled readers and seeks to determine the relation between the number of reading courses taken and the teachers' models of the reading process. The DeFord *Theoretical Orientation to the Reading Process* was administered to 106 Adult Basic Education (ABE) and 42 General Education Development (GED) teachers in Illinois. The instrument differentiates teachers according to their notions of reading. Of the 148 instructors, 31% scored in the "phonics" range, 68% in the "multiple skills" range and less than 1% in the "meaning" range. More than twice as many ABE instructors scored in the phonics model range than did GED instructors. In all, 80% of GED instructors held a skills model of reading compared with 63% of ABE instructors. The number of reading courses taken ranged from 0 (n = 40) to 7 or more (n = 14). The researchers report that ABE instructors who have taken four or more reading courses appear to be about equally divided in terms of their phonics and skills orientations.

MOORE, PHILLIP J. Teachers' views on reading: Match or mismatch with materials. In Jonathan Anderson & Kate Lovett (Eds.) *Teaching Reading and Writing to Every Child.* Adelaide, South Australia: Australian Reading Association, 1983, 116-124.

Compares the responses of 63 Australian infant and primary school teachers on the DeFord *Theoretical Orientation to Reading Profile* (TORP) with the theoretical orientation of the reading materials used by the teachers. Using the TORP criteria, 18 teachers were identified as being predominantly code-oriented (phonic, sound-symbol) in their orientation, 45 teachers were identified as skills-oriented, and no teacher was classified as whole language oriented. No significant differences were found between infant and primary teachers' TORP scores; neither were years of teaching a significant factor in teachers' TORP scores. Content analyses of the first level books of four reading series were completed on several factors: number of unique words, total words, new words per 100, average repetition per word, Spache Readability, and average length in pages. The two series identified as language-oriented had higher readability levels, introduced and repeated new vocabulary at approximately the same rate, and differed in the number of unique words. The skills-oriented series did not differ from the language series in introduction and average repetition per word. The fourth series, however, introduced new words at a rate less than half of that for the other readers and doubled the average repetition per word. Teachers' orientations to reading were not necessarily matched to the reading schemes they used.

GRAY, MARY JANE. Is the influence of psycholinguistic research evident in preservice teachers' views of the reading process? *Reading Horizons*, Summer 1984, *24*, 253-258.

Administers a 12-item self-rating scale to two groups of preservice teachers in an effort to determine if psycholinguistic views about reading were held. Data were based on responses from 37 elementary education majors and 23 special education majors. Response rate was approximately 44%. Results suggest these preservice teachers held more traditional than psycholinguistic views of the reading process. Differences were found between the groups on beliefs toward mastery of the rules of reading, phonic skills, and word-perfect reading.

CLINE, RUTH K.J., & FIXER, ROBERT J. Survey of attitudes toward language arts for prospective elementary teachers. *English Education*, May 1985, *17*, 69-78.

Describes development of a survey instrument for measuring attitudes of prospective elementary teachers toward the language arts and teaching the language arts. Items were adapted from survey measures in other content areas. A 5-point Likert scale was developed to gather responses to attitude statements. A pilot instrument of 61 positive and negative items, as well as 13 items specifically related to reading, was administered to 21 secondary education students. After item analysis a revised survey was administered to 75 prospective elementary teachers. Students' responses to the 66 items were submitted to factor analysis; the analysis yielded three subtests of acceptable reliability, measuring attitudes toward 1) writing, speaking, and analysis of language; 2) literature; and 3) teaching language arts. The intercorrelations of the subtests and their correlations with the reading subtest items and SAT-Verbal scores are provided.

DEFORD, DIANE E. Validating the construct of theoretical orientation in reading instruction. *Reading Research Quarterly*, Spring 1985, 20, 351-367.

Describes attempts to validate the DeFord *Theoretical Orientation to Reading Profile* (TORP), an instrument that employs a Likert scale response system to determine teacher beliefs about practices in reading instruction. Data were collected in three phases: 1) administration of the scale to a sample of 90 teachers whose theoretical orientation to reading (phonics, skills, or whole language) was identified by reading coordinators or professionals in the field who had observed them teach; 2) comparison of the responses of three judges from the field of reading as to their concordance on the profiles expected from phonics, skills, and whole language respondents; and 3) observation of 14 teachers by 3 trained observers who in turn predicted the responses of the teachers on the instrument. Results indicated that teachers of known orientation did exhibit response patterns more similar to one another than to teachers with other known orientations. The greatest measurable difference in theoretical orientation to reading as evaluated by the TORP was between the phonics and whole language orientations. The whole language group responded with the most unity of group response and was consistently different from the other two groups as measured by this instrument. In addition, judges' response patterns indicated sufficient agreement on each of the three profiles to support the three models of reading. There was a significant match between teacher behavior/observer response as measured by total TORP score. All facets of data collection supported the reliability/validity of the instrument for discriminating teachers' orientations to reading.

Blake, Mary E. Reading in Denmark: A relaxed atmosphere is the key. *The Reading Teacher*, October 1984, *38*, 42-47.

Gathers information about approaches to reading instruction in Denmark through observations in 15 classrooms and interviews with 11 educators during a two-week period. One method observed in primary levels was language experience. Teachers were reported as having a calm, relaxed attitude toward reading, due to the fact that one teacher will be with the same group of children from 5 to 7 years. Therefore, they know children can catch up the next year if any skills are weak. The emphasis appears to be upon the whole child rather than upon mastery of individual skills. At the upper grades, reading instruction was characterized by a refinement and extension of skills. Reading clinics were in seven of the schools visited.

II-3 Preservice/inservice preparation

Andrews, Nancy C.; Moss, R. Kay; & Stansell, John C. Reading (aloud, that is) to undergraduate reading methods classes. *Journal of Reading*, January 1985, *28*, 315-320.

Explains a rationale for reading children's literature aloud to undergraduate students enrolled in university reading methods classes, and includes a list of the books read, as well as an explanation for the choice of several of the texts. Results of an informal, brief questionnaire, administered to 24 undergraduates who were read to and 24 who were not, suggested that students exposed to children's literature had more positive attitudes toward using books with children and more understanding of how literature could be used for instruction and pleasure than did students whose instructors did not read aloud in class.

Stansell, John C.; Moss, R. Kay; & Robeck, Carol P. The development of theoretical orientation to reading among preservice teachers: Effects of a professional training program. In Jerome A. Niles & Larry A. Harris (Eds.) *New Inquiries in Reading Research and Instruction.* Thirty-first Yearbook of The National Reading Conference. Rochester: The National Reading Conference, 1982, 242-250.

Investigates how an undergraduate reading specialization program affects the theoretical orientations of students enrolled in it. The program required students to complete seven courses, representing 18 credit hours, and a full semester of student teaching. An instrument developed by a previous researcher was administered to students at various points in the program over a two-and-one-half year period. The instrument used 28 propositions about reading instruction, and a five-point Likert scale, to assess beliefs about reading and reading instruction. In all, 761 protocols were collected for analysis, which had been collected at 12 points in relation to completed coursework combinations. Comparisons were made between students' theoretical orientations at these various points, and are reported in detail. It is concluded that introductory courses tended to move students from a phonics to a skills orientation, that a field-based practicum had no effect on students' orientations, and neither did student teaching experience.

Smith, Patricia K.; Fairbanks, Marilyn M.; & Saltz, Martin. Status and content of reading foundation courses. *Reading Improvement*, Fall 1984, *21*, 232-239.

Surveys 304 institutions across the United States to gain information about their reading foundations courses. Of the 124 institutions responding to the questionnaire, 99 indicated that they had undergraduate and/or graduate level foundation courses. Respondents were asked to indicate whether specific components were included in their courses and to rank the importance of each component, using a 5-point Likert scale. Two major components of the survey were designed to determine emphasis on a theoretical focus (history, psychology, physiology, sociology, pedagogy, research and the reading process) as well as emphasis on a skills-related focus (skill development, communication, diagnosis and remediation, success-related factors, and current issues). Responses were analyzed for the total group and for three subgroups: institutions with graduate courses only, with both undergraduate and graduate courses, and with undergraduate courses only. Emphasis on the Reading Process appeared as the highest-ranked "included" theoretical component for the total group (98% of all institutions) and for each subgroup. It was also ranked highest in "importance" (86% of all institutions), with the exception of the undergraduate subgroup, where it ranked second in importance to Pedagogy. Historical components were ranked lowest in "inclusion" and "importance" for the total group in the theoretical area. For the skills-related aspects of the questionnaire, Word Recognition and Comprehension Skills were most often included by the total group (90%). Diagnosis and Remediation received the lowest ranking for "importance" by the total group and all subgroups. Graduate courses more often than undergraduate included and considered important the theoretical component, Research. The majority of respondents indicated satisfaction with the courses offered.

BAILEY, MILDRED H., and GUERRA, CATHY L. Inservice education in reading: Three points of view. *The Reading Teacher*, November 1984, *38*, 174-176.

Carries out a statewide questionnaire survey of inservice needs as perceived by university reading teacher trainers, school system supervisors/curriculum specialists, and elementary classroom teachers of reading. Involved were 15 university professors in 10 universities of whom 10 returned questionnaires (66%). From 75 school system supervisor/curriculum people, 60 returned their completed forms (80%). The third group included 63 elementary classroom teachers, one from each school district in the state, of whom 61 responded (97%). Fourteen areas of reading instruction were listed for consideration. Eight of these were seen as being of "most importance" by more than 50% of the teachers responding, and included: developing comprehension skills, diagnosing individual needs, providing for beginning reading instruction, using writing, speaking, and listening in reading instruction, providing for disabled readers in the classroom, developing word attack skills, using basal reading materials, and providing for the superior reader. For all three groups, comprehension skills received the highest percentages in the "most importance" category.

FLIPPO, RONA F.; HAYES, DAVID A.; & AARON, ROBERT L. Teacher competency testing and reading specialty preparation in Georgia. In George H. McNinch (Ed.) *Reading Research to Reading Practice.* Third Yearbook of The American Reading Forum. Athens, GA: The American Reading Forum, 1983, 94-98.

Reports the results of a questionnaire survey concerning the content of graduate level reading education courses in one state. The questionnaire was developed to assess the match between such courses and the content of the state reading specialist test. The 118 job-related content objectives in the latter test were collapsed into 56 questionnaire items, to which respondents were requested to mark "no attention," "mentioned," "stressed," or "major emphasis" in relation to the content of the courses they taught. The questionnaire was sent to 55 faculty teaching at least one graduate level reading course. Response rate was 69%, with 60% of the total sample being useable. Responses are reported in detail for each item. Major conclusions were reached concerning six subareas. In the area of language development and reading readiness, stress or major emphasis was given to most instructional areas. The major emphasis in all institutions was in the area of developmental reading instruction, while reading assessment techniques were also stressed. Responses in the area of reading disabilities were mixed, dependent on the theoretical orientation of the institution. Limited attention was generally paid to program management, and the area with least emphasis was that of the personal reading skills of the students taking the courses.

Larson, Colleen L., & Smith, Richard J. A study of the professional interactions between reading specialists and beginning teachers. *Wisconsin State Reading Association Journal*, Fall 1984, *29*(1), 6-11.

Examines the professional interactions between reading specialists and beginning teachers to determine if neophytes perceive that they receive assistance from specialists. Surveys were mailed to 103 elementary education graduates of the University of Wisconsin-Madison who were employed full- or part-time as classroom teachers in Wisconsin public schools and who had not taught more than four years. Thirteen first-year teachers, 15 second-year, 8 third-year, and 14 fourth-year teachers returned the survey. Responses indicated that most of the teachers received assistance during their first years of teaching and that reading specialists, as well as other teachers, provided most of that help. Teachers who received help from specialists for the most part (70%) rated that help as very useful or somewhat useful. Teachers reported receiving most assistance in assessing students' needs, using materials (supplementary and basal), grouping students, and evaluating growth. Teachers perceived that most help was provided through unplanned, informal meetings, planned conferences, and grade-level meetings.

Miller, John W., & Ellsworth, Randy. The evaluation of a two-year program to improve teacher effectiveness in reading instruction. *The Elementary School Journal*, March 1985, *85*, 484-495.

Documents an effort to evaluate a two-year inservice education program. The more than 40 participants in the program were compared on various measures with about 95 nonparticipants. Data collected from teachers included pre- and postmeasures on the *Inventory of Teacher Knowledge of Reading* and a 28-item attitude questionnaire on reading-related issues. Additionally, a random sample of 16 participating and 17 nonparticipating teachers were observed using a six-dimensional classroom observation schedule. Three observations were made; teachers at each grade level, one through six, were included. Demographic data indicated that less experienced teachers, ones with fewer degrees, and ones with fewer reading courses were more likely to be participants. Before and after inservice, participants scored better on the inventory than nonparticipants. Observational data indicated that participants showed higher implementation levels of desired behaviors in the six areas viewed than did nonparticipants. The *California Achievement Test*, reading comprehension subtest, was administered to pupils of participating and nonparticipating teachers. Results suggested that pupils taught for two years by participating teachers scored better than did children taught by nonparticipating teachers.

Askov, Eunice N., & Dupuis, Mary M. Results of a three-year study of teacher change through inservice in content area reading. In George H. McNinch (Ed.) *Reading Research to Reading Practice*. Third Yearbook of The American Reading Forum. Athens, GA: The American Reading Forum, 1983, 110-112.

Reports the effects of an inservice program to develop reading instruction in content area classrooms. In the first year of the Content Area Reading Program (CARP) 25 teachers from grades 4 through 10 met each month for two three-hour workshops. The first workshop of each month was theoretical and the second applied theory to the teachers' own classrooms. Participation of teachers in the second year of the program was too low to be included in the analysis. In the third year science and social studies teachers in secondary schools were required to participate. Subjects from both years were pre- and posttested on a measure of attitude toward incorporating instruction in the content areas (Statements Survey), the practicality of doing so, teachers' perceived skill for doing so, and a criterion-referenced knowledge of reading skills test. All other teachers in grades 4 through 10 were also tested in the first year. The experimental groups demonstrated greater gains than the comparison groups in terms of knowledge ($p < .001$), attitude ($p < .005$), and perceived skill ($p < .02$). The amount of change in all measures did not differ for the third and first year experimental groups, although the latter group scored higher in terms of knowledge and attitude on both the pre- and posttests ($p < .05$).

Talmage, Harriet; Pascarella, Ernest T.; & Ford, Sue. The influence of cooperative learning strategies on teacher practices, student perceptions of the learning environment, and academic achievement. *American Educational Research Journal*, Spring 1984, *21*, 163-179.

Describes the findings of a three-year evaluative investigation of teachers' involvement in cooperative goal structuring approaches in selected reading and language arts classes in first through sixth grade. The purpose of the program was to reduce competition among pupils by increasing teachers' skills in conducting cooperative learning activities. Three subgroups of teachers constituted the experimental group: teachers in the project for a year, two years, and three years. Two types of control sections were utilized: nonparticipating teachers from participating schools, and nonparticipating teachers from nonparticipating schools. Classroom observations, interviews, and pre- and postmeasures of teaching practices and teacher attitudes were used as data along with measures of pupil perceptions of classroom learning environment and the *Science Research Associates* test scores in reading comprehension and language arts. In the third year of the project there were 60 experimental teachers from 12 schools and 47 acting as controls. The results suggested that cooperative goal structuring strategies might be learned by teachers through long-term, inservice programs. With prior achievement, grade level, and initial cooperative environment perceptions held constant, length of teacher experience with cooperative grouping was significantly associated with both end-of-year reading achievement and pupil perceptions of the degree of cooperation in their learning environment. This did not hold for language arts achievement nor for the hypothesis that degree of cooperation in the learning environment would directly influence student achievement.

Townsend, Brenda S. Study skills: Impact on a teacher inservice program on student achievement. In George H. McNinch (Ed.) *Reading in the Disciplines*. Second Yearbook of the American Reading Forum. Athens, Georgia: The American Reading Forum, 1982, 90-92.

Examines the effects of a competency-based content area reading project for inservice teachers on the reading/study skills achievement of pupils. Teachers ($n = 6$), who had completed a year-long course in content area reading, were matched with other teachers of similar teaching experience. The resulting classes were in fourth grade social studies, fifth grade science, fifth grade social studies, eighth grade English, eighth grade history, and ninth grade math. Instruments administered to the pupils were the reading subtest of the *Comprehensive Tests of Basic Skills* (CTBS), the work study skills subtest of the *Iowa Test of Basic Skills* (ITBS), and selected subtests of the *Wisconsin Tests of Reading Skills Development: Study Skills* (WTRSD). Data for the matched teacher groups were analyzed with an analysis of covariance, with the CTBS as the covariate. The fourth grade comparison group scored higher than the experimental group on the WTRSD ($p < .05$). The eighth grade English experimental group performed better than the comparison group on the ITBS ($p < .001$) and the WTRSD ($p < .001$). Other significant differences are reported for various subtests in each test.

ASKOV, EUNICE N., & DUPUIS, MARY M. Research results: Teacher change in content area reading. In George H. McNinch (Ed.) *Reading in the Disciplines*. Second Yearbook of the American Reading Forum. Athens, Georgia: The American Reading Forum, 1982, 87-90.

Investigates the effectiveness of an inservice program designed to encourage content area reading. Teachers ($n = 16$) from grades 4 to 10, who taught content area subjects, attended two three-hour workshops a month for an academic year. The first workshop of each month was theoretical, while the second allowed the application of workshop content to teachers' own classrooms. Subjects were pre- and posttested on three instruments. A statement survey, consisting of a 20-item Likert scale, assessed teacher attitude to content area reading. A situations survey, utilizing a semantic differential technique, assessed reactions to situations in the content area classroom, the feasibility of certain situations, and teachers' confidence in implementing a diagnostic-prescriptive plan. The third instrument was a multiple-choice test of knowledge of reading skills. The experimental group was compared to a control group consisting of other teachers in the school district (n between 64 and 73). There was a difference between the gains of the experimental and control groups on all the measures, $p < .05$.

HARKER, W. JOHN. A functional approach to inservice for secondary content-area teachers. *Reading Horizons*, Winter 1985, *25*, 77-82.

Reports the development, implementation, and evaluation of an inservice program in reading instruction that has served 247 secondary teachers. A preliminary needs assessment instrument was designed to assess the perceived needs of teachers who would receive inservice training. Prior to their training, teachers responded to a questionnaire covering 12 topic areas of secondary reading. They were asked to rate the items on a 3-point scale from important to not important. The majority of teachers were more interested in learning about instructional processes (determining student needs, specific teaching techniques, ways of organizing classrooms, and techniques for selecting instructional materials) than in learning more about specific reading and study skills. Approximately two weeks after the inservice, all teachers completed another questionnaire designed to determine the effectiveness of the program. Respondents were asked to rate their degree of agreement with 10 positive statements about the program. The majority of teachers determined most aspects of the program to be successful. The only item that failed to achieve 50% agreement among the participants was one indicating that suitable follow-up had occurred.

CRISCUOLO, NICHOLAS P. Professional reading development and the evaluative process: A call to action. *Reading Horizons*, Spring 1984, *24*, 193-196.

Surveys small and large school districts (41 responses) nationwide to determine inservice offerings in reading and district evaluation procedures for teachers. While not all districts included criteria relative to professional growth as a basis for evaluating teachers, there was a total absence of any reference to membership in professional organizations as an evaluation criteria. Inservice opportunities varied greatly with the districts, and plans and requirements were not generalizable across districts.

FARRELL, RICHARD T., & CIRRINCIONE, JOSEPH M. State certification requirements in reading for content area teachers. *Journal of Reading*, November 1984, *28*, 152-158.

Surveys 1983 state certification policies to determine if reading methods are a requirement for certification of teachers in grades 7 through 12, and, if so, in what content areas. The survey also inquired into the guidelines for meeting the certification requirement as well as the perceived effectiveness of the requirement. Thirty-two states had a reading requirement for all secondary certifications, 5 for English/language arts only, and 14 had no requirement. No regional pattern was prevalent. Data are compared with previous studies of certification requirements. The most frequently adopted approach for certification was requiring reading courses. Workshops and demonstrated competency were also accepted in several states.

Bromley, Karen, & Carpenter, Robert L. Reading instruction in resource rooms. *Reading World,* March 1984, *23,* 209-217.

Explores the time spent by special education resource room teachers in diagnosing and instructing students in reading and the amount and type of their preparation in the teaching of reading. Data were gathered from questionnaires completed by 80 teachers of the educable mentally retarded and/or learning disabled, and from a survey of 15 graduate catalogs from institutions offering Master's degrees leading to certification as a special education teacher in New York State. Teachers reported that about 2¾ hours per week or half the time spent by students in a resource room was spent in direct instruction in reading, with most of that time spent on comprehension activities. In the 15 catalogs reviewed, 8 institutions required no coursework in reading and 4 required at least three hours of coursework in reading. Of these latter, two required a methods course and two a diagnostic course. Mean hours of graduate work in diagnostic procedures taken by respondents were 4.9 with a range from 1 to 18.

Book, Cassandra L.; Duffy, Gerald G.; Roehler, Laura R.; Meloth, Michael S.; & Vavrus, Linda G. A study of the relationship between teacher explanation and student metacognitive awareness during reading instruction. *Communication Education,* January 1985, *34,* 29-36.

Studies whether teachers who provide explicit explanation about cognitive processing of skills produce more metacognitive awareness on the part of low group pupils. Twenty-two fifth grade teachers from 13 elementary schools who volunteered to participate in the training study were observed and rated, using a management observation form to establish baseline scores. Based on those scores, teachers were stratified by high, medium, and low management ratings and then randomly assigned to either the treatment or control condition. The treatment group received information regarding the components of the explanation model to be used in developing lessons, including 1) skill introduction, 2) skill explanation with the thinking process modeled aloud, 3) teacher interaction with pupils while children practice the skill and explain their process, and teacher both corrects mistakes and tries to get pupils to think through the use of the skill on their own, 4) skill practice; and 5) skill application in connected text. The control group participated in a faculty conducted workshop on classroom management. Teachers in the treatment group were asked to design a skill lesson using the explanation model. All teachers in both the control and treatment groups were observed, and at least five children from their low reading groups were interviewed after the lessons as to the content, importance, and application of what was taught. Transcripts of the lessons and interviews, as well as the researchers' field notes and the management rating forms, were analyzed Results indicated that pupils of teachers trained to use explicit explanation were more aware of what they had been taught than pupils of teachers who were not similarly trained. In addition, there was a significant positive relation between explicit explanation and metacognitive awareness. Teachers who were trained to use the explanation model became more explicit over time.

Sanger, Dixie D., & Stick, Sheldon L. A workshop to incorporate language development in teaching reading. *Reading Horizons*, Summer 1984, *24*, 266-274.

Discusses preliminary findings based on five teachers who implemented an integrative reading-language approach learned in a 90-minute inservice workshop. Children involved were 43 second- and third-grade low readers. Additionally, five teachers and 39 children served as controls. Experimental teachers are reported as having initiated more than twice as many language behavior opportunities during reading instruction as did controls. Although data are not presented, the authors report that analyses of covariance indicated statistically significant differences were found between groups for subtests (unnamed) of vocabulary development, syntactic skills, reading directions of schoolwork, and retelling stories. Other findings suggested that the teacher variable accounted for the relative degree of success or nonsuccess of the workshop. Interviews conducted with experimental teachers indicated that they felt the workshop had heightened their awareness of the importance of language development in teaching reading and that retelling of stories was seen as the most helpful language activity for improving reading skills.

Kurth, Ruth Justine, & Stromberg, Linda J. Improving comprehension instruction in elementary classrooms. In George H. McNinch (Ed.) *Reading Research to Reading Practice*. Third Yearbook of The American Reading Forum. Athens, GA: The American Reading Forum, 1983, 127-131.

Investigates the effects of inservice intervention on comprehension instruction in an elementary school. Three teachers in each of grades two, three, and four were observed during formal reading instruction in the 4th, 5th, and 6th weeks, and the 33rd, 34th, and 35th weeks of a school year. Observers monitored the type and amount of comprehension and word recognition instruction done by each teacher, the number of pupils reading at their independent level, and time spent on noninstructional and transitional activities. Three mornings a week for two semesters were spent by four researchers working with the teachers to develop reading comprehension instruction through demonstration lessons and lesson planning. Teachers were also helped to ascertain the reading levels of their pupils through a modified informal reading inventory, and materials at many levels were provided. The percentages of reading time devoted to comprehension instruction increased from 2% to 36%, 12% to 39%, and 9% to 44% for second, third, and fourth grades respectively, as measured by pre- and postintervention observations. Time devoted to word recognition instruction decreased, as did time spent on transitional and noninstructional activities. Children reading at independent level increased from 35% to 82%, 46% to 96%, and 30% to 84% for the three grades. A model of clinical supervision techniques is discussed.

Coladarci, Theodore, & Gage, N.L. Effects of a minimal intervention on teacher behavior and student achievement. *American Educational Research Journal*, Fall 1984, *21*, 539-555.

Reports the results of a minimal intervention on teacher behavior, where teacher training was conducted through six mailed information packets of recommended teaching practices. Subjects were 32 volunteer teachers of fourth, fifth, and sixth grade classes who were visited on two occasions for classroom observation of two hours' duration before and after the training. Data were collected on 28 classes of 631 black, low socioeconomic children. The packets contained information on behavior management and classroom discipline, instructional methods, and questioning and feedback strategies. Each of the 26 items of the observation record reflected components of the information in the teacher education packets. Teachers were observed to obtain a total score representing a teacher's general conformity to recommendations in the packet. Children's scores were assessed by the *Comprehensive Tests of Basic Skills*, using a total reading score, a total mathematics score, and a combined total score. Training-related teaching practices of the experimental group teachers were not altered appreciably as a result of the minimal intervention, and teacher training materials had little effect in improving student test achievement.

Calfee, Robert. Applying cognitive psychology to educational practice: The mind of the reading teacher. In Rosemary F. Bowler (Ed.) *Annals of Dyslexia*, Vol. 34. Baltimore, Md.: The Orton Dyslexia Society, 1984, 219-240.

Discusses the lack of coherency in the training of teachers of reading. Argues that the foundations of literacy in English require analysis of human cognition, formal use of language (rhetoric), and the peculiarities of the English language. States that the materials presently available for training reading teachers and for providing them support in reading instruction give little or no attention to these foundations.

Ivers, C.J. A survey of the libraries and librarians in the secondary schools of the Pendle area. *Education Libraries Bulletin*, Autumn 1984, *27*, 35-51.

Interviews teacher-librarians in seven secondary schools in the Pendle area of England relative to how far school libraries had implemented recommendations for secondary school libraries as well as other data concerning the school library. Only two schools made provisions for their library to be open and staffed throughout the normal school day. In two other schools, the libraries are not available at all during the school day. In the three remaining schools, no provision is actually made for the availability of the libraries during the school day except through the good-will of the librarians. Five schools use their libraries as classrooms for significant periods of time. None of the seven interviewees held any formal qualifications in school librarianship; only one had attended a recent course connected with librarianship. In six of the schools, the teacher-librarian served as a full-time teacher and part-time librarian; in only two of the schools was allowance made for time to work in the library as librarian.

II-4 Roles

Bean, Rita M., & Eichelberger, R. Tony. Changing the role of reading specialists: From pull-out to in-class programs. *The Reading Teacher*, March 1985, *38*, 648-653.

Notes the changes in roles and activities of reading teachers involved in a new in-class program as compared with a previous pull-out program. At the end of the first year of an in-class program in which reading teachers worked with children in their regular classrooms, questionnaires were sent to both reading teachers and classroom teachers in 105 elementary, middle, and secondary schools. There was a return rate of 90% with responses from 74 reading teachers and 411 classroom teachers. Questionnaires called for responses in four general categories: student-related functions, resource-role functions, administrative functions, and curriculum development functions. Follow-up interviews were conducted in selected schools with 10 reading teachers and 13 classroom teachers. Reading teachers indicated significant changes in three of their functions when comparing in-class with pull-out services: more emphasis on working with content teachers, and less emphasis on both diagnosis and teaching specific skills. Classroom teachers tended to concur with the perceptions of the reading teachers. Interview data suggested that reading teachers spent more time with group instruction and less with individuals in the in-class program. Strengths of the in-class program were identified as teacher interaction and cooperation, and the possibility of individualized instruction and small class sizes.

READ, DONNA J., & THOMAS, CARMEN. Reading resource specialists in the middle and secondary school. *The Florida Reading Quarterly,* June 1984, *20*(4), 30-37.

Reviews selected research related to the effectiveness of middle and secondary school reading professionals. Prompted by passage of a Florida Senate Bill approving funding for a reading specialist for each high school, the Florida Reading Association's Research and Study Committee reviewed literature that pointed to increased awareness of need for reading specialists, the perceptions of their role, the variety of existing programs with no clear claim to superiority, and the dearth of a body of experimental or quasi-experimental research that addresses the effectiveness of reading resource specialists.

MOTTLEY, REED R., & MCNINCH, GEORGE H. The principal and the reading program. *Reading World,* December 1984, *24*(2), 81-86.

Examines the extent to which elementary school principals perceive themselves as performing specific reading supervisory or administrative tasks and questions the extent to which actual involvement is congruent with the principals' ideal standard of performance. Principals responded to five domains of professional responsibility on a 51-item questionnaire using a 5-point scale. Half the group responded to the items based on their own job performance, while the other half responded to instructions requesting ideal behaviors expected of a building principal. Respondents perceived themselves as *frequently* performing the total set of tasks (mean rating = 4.07), including working with teachers, working with students, creating a positive atmosphere, providing policy leadership, and building community support. The second group indicated that principals should *frequently* or *always* be involved in the specific behaviors. Only in the area of working with pupils was there no significant difference in a t-test comparison of perceived role and actual performance. In all other comparisons, the mean scores were higher for the principals responding to the ideal role.

MASON, RICHARD W. Where have all the right to read directors gone? *Wisconsin State Reading Association Journal,* Fall 1984, *29*(1), 16-20.

Presents results of a follow-through study of 21 Wisconsin Right to Read Directors who were located after a 10-year interval. Questionnaires were designed to elicit what the directors were currently doing, and whether the intensive training sessions they experienced in 1974 were beneficial. The most frequent role held by respondents at the time of training was that of Reading Specialist (10 of 21). After 10 years, Reading Specialist continued to be the most frequently reported role (8), but there was an increase in the number of respondents listing Administration/Central Office as their current role. Respondents most frequently indicated "the development of professional relationships" as the kind of influence Right to Read training had on their professional careers. Other benefits most frequently mentioned were "Planning, designing, evaluating K-12 reading programs," and "Increasing practical reading knowledge."

RAUCH, SIDNEY J., & SANACORE, JOSEPH. The administrator and the reading program: An annotated bibliography on reading leadership. *Reading World,* May 1984, *23,* 388-393.

Presents a 22-item annotated bibliography of articles and books appropriate for administrators to read to learn more about becoming effective reading leaders and creating strong reading programs for their schools. Includes research reports and summaries of research.

II-5 Evaluation of programs and materials

WILSON, ROBERT M., & BECKER, HELEN L. An educational audit of a district's reading personnel. *Reading World*, December 1984, *24*(2), 69-72.

Reports the results of an educational audit of reading personnel (57 reading specialists) to determine their effectiveness in performing their roles. Questionnaires were distributed to both reading teachers and a group of 75 school principals. The questionnaires were designed to reflect the reported priorities of the central office and local schools. Reading teachers responded to both qualitative and quantitative items, while principals responded only qualitatively. Those responses were used to validate the self reports of the specialists. Quantitative data were collected via a 5-point Likert scale. Each designated priority received a mean rating above a 4.0 on the scale by both groups. The lowest rating by principals was 4.3 for reading in the content areas; the lowest rating by teachers (4.1) was for effectiveness in faculty meetings. Principals rated teachers higher in selecting and implementing new reading materials; reading teachers rated themselves highest in integrating reading and writing, as well as planning with teachers. The researchers recommended collection of supporting data for services and programs for every school district.

HOFFMAN, AMY R.; KEARNEY, PATRICIA; & DANIELS, SUSAN. Reading instruction: What we say and what we do. *Reading Improvement*, Spring 1985, *22*, 64-72.

Analyzes the content of elementary reading methods textbooks to note patterns of emphasis for selected topics. Four to six books were selected from each of six time periods: early years (1890s-1930s), 1940s, 1950s, 1960s, 1970s, and 1980s. Each textbook was evaluated with a checklist, which included 17 major topics usually included in an elementary reading methods course. The percentage of the book devoted to each of the topics was measured, and the average for each time period calculated. There were significant differences over time for each content category ($p < .001$). Differing emphases over time are traced for certain of the areas, and compared with actual instructional practices.

SHIVE, R. JERRALD, & MEANS, HARRISON J. Criteria for an affirmative reading skills program. *Reading Improvement*, Spring 1984, *21*, 51-58.

Reports criteria for an affirmative reading skills program established after a court order found Cleveland, Ohio public schools liable for intentional segregation. Thirteen criteria were determined by examining other school district court orders, surveying existing programs and published reports of other programs, exploring issues related to competency and affirmative actions, and examining the use of standardized tests for program evaluation.

HEATHINGTON, BETTY S., & ALEXANDER, J. ESTILL. Teachers' perceptions concerning the directed reading activity. *Reading Improvement*, Summer 1984, *21*, 140-144.

Surveys 33 first, 20 second, and 33 third grade teachers to determine their perceptions of the value of various components of the *Directed Reading Activity* (DRA). Specifically, the survey was designed to determine which components of the DRA teachers consider to be most helpful to children, and how responses vary by years of experience and level taught. Questionnaires were mailed to a stratified sample (by size and area) of Tennessee schools. Of the 86 respondents whose surveys were analyzed, 15 had from 5 or fewer years of experience, 18 had 6-10 years of experience, 23 had 11-15 years, and 30 had over 15 years of experience. Teachers rated the components of a DRA on an 8-point scale, from least helpful to most helpful to students. Mean scores indicated that the aspects of the lesson titled Comprehension Check, Introducing New Words, and Skill Development were perceived by respondents as most helpful to children (5.51), while Extension Activities were consistently viewed as least helpful (2.90).

II-6 Reading habits

BAKER, STANELY E. Reading habits and patterns of inservice reading teachers in public and private school settings. In George H. McNinch (Ed.) *Reading in the Disciplines.* Second Yearbook of the American Reading Forum. Athens, Georgia: The American Reading Forum, 1982, 79-81.

Investigates the reading habits of elementary school teachers who were involved in the supervision of practicum students. A response rate of 32% (n =38) was achieved to a questionnaire designed to indirectly assess reading habits and attitudes to reading. Respondents read mainly for recreation, with the main categories being social sciences, 73%; the Bible, 71%; mysteries, 71%; autobiographies, 71%; general references, 71%; and history and geography, 68%. The majority of leisure time was spent watching TV for 37%, while 29% preferred reading. Newspapers were read by 89% of respondents. Other responses suggested that the subjects rarely read professional journals related to reading.

III. Sociology of reading

III-1 Role and use of mass media

TRAVIS, LEROY D., & VIOLATO, CLAUDIO. Experience, mass media use and beliefs about youth: A comparative study. *The Alberta Journal of Educational Research,* June 1985, *31*, 99-112.

Compares the responses of 122 Canadian teachers with those of 488 education students who were subjects in a previous study concerning their habits and credulity of mass media and their beliefs about youth. Questionnaires were distributed in classes to teachers who volunteered to be in the study but were completed outside of class time. Teachers tended to be more discriminating than the students in the types of television watched and the types of periodicals read, but there was no difference in the amount of time spent watching television and the frequency of newspaper reading. Teachers tended to place high degrees of confidence in mass media as reliable sources of information about world affairs. Both groups had unrealistic perceptions of young people.

ROGERS, EVERETT M.; ZHAO, XIAOYAN; PAN, ZHONGDANG; CHEN, MILTON. The Beijing Audience study. *Communication Research*, April 1985, *25*, 179-208.

Presents the findings of the first large-scale communication study in China, completed in 1982. Interviews were conducted with 2,430 adults and focused upon 54 questions related to the size of audiences, composition, preferred content, preferred sources of news, credibility of newspapers, and suggestions for improvement of newspapers. Radio reached 97% of the subjects on a daily basis; television, 92%; and newspapers, 81%. Group televiewing accounted for the large numbers. For each medium, exposure was greater with those of higher levels of formal education, with urbanites, and with women. International news was the preferred content of radio and newspaper. Males preferred world news and sports; females, literature and TV drama. Newspapers were perceived as the most credible source of news.

SMITH, KIM A. Perceived influence of media on what goes on in a community. *Journalism Quarterly,* Summer 1984, *61*, 260-264, 338.

Examines citizen's impressions of the influence of the media in Louisville, Kentucky. As a part of a larger study, 430 citizens responded to a survey instrument in interviews in their homes between December 1977, and January 1978. They were asked to select from a list of 12 selected private sector groups the two having the greatest influence and the two having least influence on the activities in the community, and to tell if each of the 12 groups had a mostly positive or mostly negative influence on the community. The three demographic variables considered were age, race, and income. The television/radio and daily newspapers were ranked the first and second most influential groups by the total sample and within almost all of the age, race, and income subsamples. Approximately 75% felt that the influence of the daily newspapers was mostly positive while more than 60% gave the same rating to the television/radio group.

SOLEY, LAWRENCE C., & REID, LEONARD N. Satisfaction with the informational value of magazine and television advertising. *Journal of Advertising*, 1983, *12*(3), 27-31.

Ascertains consumer satisfaction with the informational value of magazine and television advertising and demographic differences in the satisfaction. Two Delighted-Terrible scales containing 144 items measured the satisfaction of 185 randomly selected subjects through telephone interviews. A paired-sample t-test was used to compare evaluations of magazine and television advertisements; multivariate analysis of variance determined the effects of demographic variables. The main conclusions drawn were that consumers are more satisfied with the informational value of magazine advertising than that of television, that blacks were more satisfied with both types of advertising than whites, and that middle-income people were more satisfied with the informational value of advertising in both media than those of low or high income.

LICHTENSTEIN, ALLEN, & ROSENFELD, LAWRENCE. Normative expectations and individual decisions concerning media gratification choices. *Communication Research*, July 1984, *11*, 393-413.

Evaluates gratifications for nine media channels (friends, magazines, radio, recorded music, films, books, newspapers, commercial television, public television) based upon the subjects' beliefs concerning how most people would respond. The number of subjects for each medium varied between 34 and 55, totaling 357 undergraduate students. Each subject rated each of 10 gratifications with respect to the medium to which he was assigned. Data were analyzed differently for each of three questions asked. The results indicated each medium has a clear, socially defined imaged, suggesting a two-stage model of media channel utilization of normative expectations followed by individual decisions.

GARRAMONE, GINA M. Motivational models: Replication across media for political campaign content. *Journalism Quarterly*, Autumn 1984, *61*, 537-541, 691.

Tests the applicability of drive-reduction and exposure learning models across three sources of political information: gratifications sought, gratifications received, level of media exposure. The drive-reduction model suggests a strong correlation between gratifications sought and gratifications received; once gratifications are controlled, exposure adds little to satisfaction. The exposure learning model suggests a strong correlation between media use and gratifications received, such a relationship remaining steady. A random survey of 367 voters in a university community was interviewed by telephone. Gratifications sought were measured by having the subjects apply six statements to themselves. Gratifications received were measured separately for political commercials, television news, newspaper news by using the same statements but having subjects state which of the three sources of news had been most helpful. Exposure to television was assessed by how often they watched certain news items and the attention they gave to the viewing. Exposure to newspaper news was evaluated by how often and how thoroughly subjects read the same news items. The data were analyzed by factor analyzing gratifications sought and received and by correlating gratifications sought, received, and media use. The exposure learning model was somewhat more efficient for newspaper news and was more efficient for television news than the drive-reduction model. Both models fit the data equally well for political advertisements.

Allen, Richard L., & Taylor, Benjamin F. Media public affairs exposure: Issues and alternative strategies. *Communication Monographs*, June 1985, *52*, 186-201.

Examines the reliability and stability of newspaper and television public affairs exposure; the relationship of social structural variables and media exposure, when measurement error is taken into account; and the effect of these social structural variables on change in exposure. The data came from a larger national election study. For this part of the study, 1,201 subjects were asked questions about their media exposure and demographic factors. Media constructs were measured at two times within a two-year interval. The results when a LISREL model was used showed that the indicators for newspaper public affairs were more reliable than those for television; but the television public affairs construct was more stable than the newspaper construct, although both yielded high stability estimates. Various demographic factors had effects on exposure to newspaper and television public affairs information.

Cerulo, Karen A. Television, magazine covers, and the shared symbolic environment: 1948-1970. *American Sociological Review*, August 1984, *49*, 566-570.

Tests the hypothesis that magazine covers enhance the shared symbolic environment, here defined as the proportion of the American population recognizing public figures and abstract cultural symbols. The sample consisted of 1,077 covers of *Life* and 588 covers of *Look*, spanning the years 1948 through 1970. Three items were coded for each cover: the total number of symbols; the total number of symbols that were labeled (identified by name or described by subtitle); and the types of labels used to present public figures (identification versus commentary). Both the use of symbolic images and the use of unlabeled symbols on magazine covers increased. Labels accompanying public figures changed dramatically in form from identification to commentary. The changes occurred most dramatically during the 1950s, a period in which television was rapidly diffused throughout American society. The investigator concluded that the shared symbolic environment in the United States was strongly enhanced by the rapid diffusion of television in the 1950s.

III-2 Content analysis of printed sources

Readence, John E., & Moore, David, W. An investigation of current attention to the early literature on content area reading instruction. *Reading World*, May 1984, *23*, 299-307.

Investigates contemporary writers' attention to the pre-1950 literature on content area reading instruction. The study identified how extensively early publications were cited, and characterized the nature of those prominently mentioned. Forty-seven pre-1950 references which had been unearthed in earlier work, were identified as major contributions. Each reference was then searched in the 1969 to 1981 *Social Science Citation Index* (SSCI) to determine the frequency of citation of each. Citations to 32 of the 47 references searched by SSCI were found. These 32 were cited 223 times, with two of the references cited much more frequently than any others: *Effective Study* by Robinson, 66 citations; and "Reading as Reasoning" by Thorndike, 44 citations. Nearly half of the 32 cited studies were included one time only. A separate search of reading-related publications revealed citations to 23 of the 47 references, with the same two references dominating the list.

Schau, Candace Garrett, & Scott, Kathryn P. Impact of gender characteristics of instructional materials: An integration of the research literature. *Journal of Educational Psychology,* April 1984, *76,* 183-193.

Reviews and synthesizes research concerning sexist and sex equitable reading materials and presents generalizations based upon these studies which apply to students from preschool through college age. From this synthesis the investigators concluded that sex-equitable materials can improve the learning experience of both male and female students, assist in developing gender-balanced associations, and do not interfere with comprehension. Students often prefer materials with same-sex main character and do not reject sex-equitable materials.

Davis, Albert J. Sex-differentiated behaviors in nonsexist picture books. *Sex Roles,* July 1984, *11,* 1-16.

Analyzes behaviors (as distinguished from activities or social roles) exhibited by female and male characters in 50 nonsexist preschool picture books and compares their portrayal with those in more conventional picture books (26 Caldecott and 20 best sellers). A coding system incorporating 15 target behaviors was developed and used in the analysis of the books. Each book had two coders, one for the text and one for illustrations. The total number of times each of 15 target behaviors was exhibited by each main character in the text and illustrations was tallied; these frequencies served as the primary dependent measure. Stepwise discriminant function and chi-square analysis revealed highly independent females and nurturant and nonaggresive males in nonsexist books. Females in these books were more nurturant, emotional, and less physically active than males in either nonsexist or conventional books. With the exception of aggressive male behavior, there was no indication of behavioral sex typing in the conventional books.

Britton, Gwyneth; Lumpkin, Margaret; & Britton, Esther. The battle to imprint citizens for the 21st century. *The Reading Teacher,* April 1984, *37,* 724-733.

Traces changes in the presence of various bias factors in the major reading series published from 1958 to 1982. The bias factors quantified included major character and career role assignments by gender and ethnicity, aged, handicapped persons, and single parent family. The reading series were divided into five time periods by publication dates so that changes could be compared over time. Although some changes were noted, the investigators concluded that women and minorities are depicted primarily in historic career roles excluding them from current realistic career choices. Both the handicapped and the one-parent families are difficult to locate. Changes found included more women in major roles and more ethnic groups included although the latter are often clustered at one grade level.

Kinman, Judith R., & Henderson, Darwin L. An analysis of sexism in Newbery Medal Award books from 1977 to 1984. *The Reading Teacher,* May 1985, *38,* 885-889.

Performs a content analysis of each Newbery Medal winner and honorable book for the years 1977 through 1984 and compares the results with those in a 1971 study. The results showed an increase in the number of books with females as main characters. Most authors considered the society in which children live. People and situations are realistic. The positive images found in the books help to reinforce the readers' positive self images. The overall image of the book was considered rather than the image of any one character.

PORRECA, KAREN L. Sexism in current ESL textbooks. *TESOL Quarterly*, December 1984, *18*, 705-724.

Examines 15 most widely used ESL textbooks for evidence of sexism. The study focused on the categories of omission in text and illustrations, firstness (sex named first), occupations, nouns, masculine generic constructions, and 11 headings of adjectives. When the findings were compared with those of a similar study conducted five years earlier, little change was noted. Females were depicted half as often as males; male firstness was three times as prevalent as female firstness. Women were less visible and more restricted in occupational roles. Adjectives used to describe females focused on emotions, physical attractiveness, marriage, and gender itself; those for males stressed renown, intellect, and education.

TETREAULT, MARY KAY. Notable American women: The case of United States history textbooks. *Social Education*, November/December 1984, *48*, 546-550.

Analyzes content of 12 American history textbooks published since 1979 to determine how notable women are treated. The general conclusion of this study was that textbooks encouraged the belief that women's contributions are acceptable when they either support male activities or are an extension of women's nurturing role within the family. Eleanor Roosevelt, who was the most discussed woman in these books, is depicted mostly as tailoring her career to be a helpmate to her husband. Women are especially mentioned in connection with major reform movements and with care for the unfortunate.

TOWNSEND, MICHAEL A.R.; MANLEY, MARGARET; & SAILS, ANYA L. Changes in sex role stereotyping in school journals. *New Zealand Journal of Educational Studies*, November 1983, *18*, 126-133.

Investigates possible sex stereotyping in the *School Journal* (New Zealand) during 1979-1982 and compares the results with those of a 1969-1978 similar study. The sample was comprised of 16 journals containing 58 stories, 42 articles, 28 poems, 13 plays, and 720 illustrations. Records were made of the sex of major, secondary, and background characters in the text and illustrations, and their occupations, activities, and personality traits. Males continued to dominate both in texts and illustrations. They were depicted in more activities, and displayed more initiative and independence than female characters. Little change was found over the years in the amounts and kinds of sex streotyping.

GILBERT, PAM. Stereotypes for the classroom: Student teachers write sexist children's stories. *Australian Journal of Reading*, March 1985, *8*, 14-20.

Analyzes various aspects of 44 children's books written by student teachers enrolled in a children's literature course. While 36 of the books were written by females, 13 books, 9 by women, had no female characters at all; five books, all written by women, had no male characters in them. Male protagonists were found in 61% of the stories, and 58% of the female students wrote male-dominated stories. Stories with a girl as the main character tended to be set in and around the home, while stories focusing on a boy were most often set outside the home. The boys were presented as having adventures and solving problems, whereas girls were presented as fearful, concerned about their appearance, and needing to be looked after.

FLEMING, DAN B. Benjamin Franklin to Watergate: The press in U.S. history textbooks. *Journalism Quarterly*, Winter 1984, *61*, 885-888, 909.

Analyzes nine secondary level United States history textbooks for quantity and quality of their treatment of 15 key events or topics related to the press in United States history. Of the nine, only three books gave considerable coverage to more than half of the topics studied. The impact of television in political and social events was weak. The role of television in political campaigns including the costs was virtually ignored. All acknowledged the beginning of newspapers and the Stamp Act where a tax was placed on newspapers. They recognized press attention to the anti-slavery movement. Most included the role of the press in the Spanish American War and propaganda used in World War I. In general, most high school history textbooks gave little coverage to major events in the history of journalism.

FLEMING, DAN B. Nuclear war: What do high school history textbooks tell us? *Social Education*, November/December 1983, *47*, 480-484.

Analyzes 19 recent history textbooks (American history, 10; world history, 9) for their coverage of the nuclear arms question. The topics investigated were the bombing of Hiroshima, atomic bomb creation, and the arms race. Both American and world history books gave scant attention to nuclear war and arms limitation. Several gave more space to the creation and development of the bomb than to the results. American history textbooks gave slightly more consideration to arms limitation talks than did world history books.

FLEMING, DAN B. The treatment of propaganda in selected social studies texts. *Social Education*, January 1985, *49*, 53-57.

Examines 45 junior and senior high school social studies textbooks (U.S. history, world geography, world history, American government) for references to and examples of political propaganda. The United States history books at both junior and senior high school levels provided the most coverage and the largest number of concrete examples of this type of propaganda. Little was found in geography and world history texts except descriptions of Fascist/Nazi governments in the 1930s. A few government textbooks provided excellent coverage, but most gave very little attention to the subject.

ROSENTHAL, DOROTHY B. Social issues in high school biology textbooks: 1963-1983. *Journal of Research in Science Teaching*, November 1984, *21*, 819-831.

Studies 22 high school biology textbooks published between 1963 and 1983 for their treatment of social issues. Each portion of the texts relevant to a social issue was classified on the basis of its main idea into one of 12 categories of social issues. The amount of space, to the nearest tenth of a page, devoted to each issue was expressed as a percentage of the total length of text. The results showed that attention to social issues decreased between 1963 and 1983. The two categories that received the most attention were the social system of science and evolution. Almost no space was given to issues related to energy resources or to space research and exploration. In general, the treatment of science and society in these textbooks minimized controversial aspects, avoided questions of ethics and values, lacked global perspective, and neglected interdisciplinary nature of problems.

ARAÑAS, PATRICIA G. Cultural influences on the grammar of ESL short stories and poems. In Byong Won Kim (Ed.) *Reading English in Asia.* The First Yearbook of Literacy and Language In Asia. Seoul, Korea: Literacy and Language in Asia, 1984, 117-29.

Analyzes the cultural influences found in Philippine literature in English short stories and poems that were awarded the Carlos Palanca Memorial Awards between 1965 and 1970. It was found that the stories utilize a Philippine variety of English which utilizes native words for objects, places, and names of persons. They also frequently utilize native language syntactic structures and express Filipino culture and aspirations.

Mullins, Lynn S., & Kopelman, Richard E. The best seller as an indicator of societal narcissism: Is there a trend? *Public Opinion Quarterly,* Winter 1984, *48,* 720-730.

Content analyzes the subject matter of 10 nonfiction best sellers for each year 1950-1979 to assess changes in societal narcissism. Book titles were categorized by Dewey Decimal Classification numbers in 10 areas, which pertained to various aspects of the self, psychological and physiological. The titles were sorted by decade and divided into two groups, narcissistic and nonnarcissistic. The hypothesis was tested by comparing the relative frequency of narcissistic titles across decades (Chi-square, 2 df). The proportion of best-selling books categorized as narcissistic increased over the period investigated. In the 1950s two specific categories of narcissistic titles appeared more than once in any listing: popular psychology and diet; in the 1960s, sexuality and diet; in the 1970s, sexuality, diet, and individual psychology.

Hubbard, Rita C. Relationship styles in popular romance novels, 1950 to 1983. *Communication Quarterly,* Spring 1985, *33,* 113-125.

Presents a case study of male/female relationships in popular romance novels published in four decades, tracing the development of particular fantasy themes and focusing on contemporary attitudes. Each period created distinct prescriptions for ideal male and female roles and interaction behavior. Thirty Harlequin romances were selected randomly from three lists, 10 from each of the 1950s, 1960s, and 1970s. Fifteen novels from six publishers with 1983 dates were also analyzed. The romance novel relationships changed from the complementary ones in the 1950s to the symmetrical relationship style of the 1980s when both sexes began to share traits formerly considered gender-specific.

Grainey, Timothy F.; Pollack, Dennis R.; & Kusmierek, Lori A. How three Chicago newspapers covered the Washington-Epton campaign. *Journalism Quarterly,* Summer 1984, *61,* 352-355.

Compares the campaign agendas in three Chicago daily newspapers during the 1983 general election and their presentations of the racial issues. Each story appearing between February 23 and April 24, 1983, was measured in column inches which were totaled for 20 issue categories. Stories not fitting the six column newspaper format used in the study were mathematically converted to allow for comparison. The amount of coverage of the seven salient issues was compared with the amount of general campaign or personal information. Generally, the *Tribune* and *Sun-Times* were impartial in their coverage of Epton and Washington, but the *Defender* gave Washington more coverage than for Epton. In all three papers race received more coverage than the seven traditional platform issues, the coverage being generally neutral, unbiased, and descriptive.

Weaver, David, & Elliott, Swanzy Nimley. Who sets the agenda for the media? A study of local agenda-building. *Journalism Quarterly,* Spring 1985, *62,* 87-94.

Explores the relation between the 1982 agendas of a daily newspaper and the city council in Bloomington, Indiana. The minutes of city council meetings and all of the newspaper's coverage of the council meetings were content analyzed and coded into 19 topic categories. The rankings were compared to see what topics were mirrored or filtered in the newspaper. Spearman's *rho* was used for the correlation of major items of the council and the newspaper. All items were divided into major and minor, depending upon their lengths. Only 59% of the items contained in the minutes were reported in the newspaper, the selection being more pronounced for major items (39% reported) than for minor ones (74% reported). On seven of the 19 topics, the newspaper played more of an active filter role; on the other 12 topics it played more of a transmitter role.

Sachsman, David B. Evaluating a state's daily newspaper. *Mass Communication Review*, Winter/Spring 1984, *11*, 2-11.

Prepares a content analysis of 10 issues of 26 New Jersey newspapers published in 1977 to be used as a quantitative baseline for a qualitative analysis of these newspapers which continued until 1983. All items of 5½ column inches in length were coded according to general location of events, content, origin. The total number of newspaper pages, advertising pages, news, and editorial comment were tallied. The findings were combined and averaged for each newspaper. The newspapers were categorized by size and circulation. The rank orders of the newspapers in nine categories such as size of newshole and numbers of photographs were averaged and used to make baseline comparisons of these newspaper.

Fico, Frederick. Search for the statehouse spokesman: Coverage of the governor and lawmakers. *Journalism Quarterly*, Spring 1985, *62*, 74-80, 94.

Relates newspaper coverage of Michigan lawmakers in early 1983 to constituency size, legislative position, political activity and effectiveness. Findings from a content analysis of 401 stories written by 67 reporters working for 11 papers are reported. Stories were coded to identify politicians named first or second and analyzed to compare the relative visibility of each type of official. The number of bills proposed and the number that were enacted were considered for each lawmaker. The governor was the most frequently mentioned state official, found in 45% of the stories. All legislators combined were mentioned first in 17% of the stories. Constituency size and political activity predicted news visibility. Measures of political activity and effectiveness were associated with first-mentioned visibility for lawmakers. Neither activity nor effectiveness significantly correlated with getting second-mentions in stories.

Streitmatter, Rodger. The impact of presidential personality on news coverage in major newspapers. *Journalism Quarterly*, Spring 1985, *62*, 66-73.

Questions whether and to what extent the personality of United States presidents influences the amount of news coverage they receive. Front-page stories in three newspapers about each of three pairs of presidents with contrasting personalities were measured. For each newspaper studied the stories appeared during the first full week of alternating months during the least eventful years of each presidency. Stories about the personal lives of each president were also identified. The front pages of 1,512 newspapers were examined, yielding 1,008 news stories, 6,528 different pieces of information, and 28,305 column inches. The results showed that the amount of news coverage varied significantly according to the personality of the incumbent president. Robust, outgoing presidents received 49% more general news coverage and 87% more personal news coverage than quiet, reserved ones did. A president's personality often gained more coverage than a political endorsement did. Specific information about the news coverage of each of the six presidents is included.

Chang, Tsan-Kuo. How three elite papers covered Reagan China policy. *Journalism Quarterly*, Summer 1984, *61*, 429-432.

Assesses press coverage of Reagan's China policy before and after his taking office to determine the newspapers' treatment of it and any changes that might have occurred in the two time periods. The number of paragraphs in six subject categories appearing between May, 1980, to January 20, 1981, and January 21, 1981, to October 31, 1981, in the Los Angeles *Times*, New York *Times*, and Washington *Post* were counted. The coverage in the three papers differed significantly in content before and after the election. When Reagan was a presidential condidate, the emphasis of the coverage was on Taiwan relations; after the election, Sino-American relations. Reagan received more negative coverage of his China policy in news stories, features, editorials and columns before the election but more positive coverage after the election.

WASS, HANNELORE; ALMERICO, GINA M.; CAMPBELL, PAUL V.; & TATUM, JACKIE L. Presentation of the elderly in the Sunday news. *Educational Gerontology*, July/September 1984, *10*, 335-348.

Examines 254 Sunday issues of 22 newspapers in three circulation groups published in 1983 to determine the amount of newspace and the specific content concerned with aging. The percent of aging space was calculated based on the space in the newshole plus interspersed advertising. Articles were classified as being issue, event/human interest, or nonproblem. On 23,010 newspaper pages, 49,577 square inches (or .87%) of age-related articles were found. Of 1,041 articles identified, the majority were event- rather than issue-oriented. Metropolitan newspapers published significantly more issue articles and depicted the elderly more in active than passive roles than papers in lower circulation areas. Males were predominantly the subjects of articles in all newspapers.

STEMPEL III, GUIDO H., & CULBERTSON, HUGH M. The prominence and dominance of news sources in newspaper medical coverage. *Journalism Quarterly*, Autumn 1984, *61*, 671-676.

Analyzes 2,137 news articles, editorials, and signed columns about medicine in every other issue during January-March, 1982 of 11 Ohio dailies with weekday circulation of at least 100,000. This encompassed 46 issues of eight papers with Sunday editions, 39 issues of others. Items were coded as to whether people from each of 13 vocational categories were quoted with their accomplishments being noted and were classified under one of six categories. The results showed that physicians were by far the most prominent, frequent sources of health-care news, followed by other health-care professionals. Physicians were quoted on specific medical problems while others were quoted concerning administrative problems. The unit of analysis was the mention, not the story.

CULBERTSON, HUGH M., & STEMPEL III, GUIDO H. Possible barriers to agenda setting in medical news. *Newspaper Research Journal*, Spring 1984, *5*(3), 53-60.

Compares medical news coverage in Ohio's 11 largest newspapers with the results of a telephone survey of 249 Ohio residents concerning important problems facing American health care. Eight of the problems listed accounted for 80% of all answers. A content analysis was performed on 2,137 news articles, editorials, and columns about medicine in every other issue of each newspaper during January-March 1982. Each news item was coded according to type of story, topic, and direction (favorable, unfavorable). The results from each newspaper were combined to form a statewide distribution of topic-mentioned frequencies. The public mentioned medical costs and insurance more than newspapers did. Specific diseases accounted for 34% of newspaper mentions but only 3% of public responses. A positive relationship was found between the number of human interest stories and nonhuman interest stories on the same topic.

SHAW, DONALD LEWIS. News about slavery from 1820-1860 in newspapers of South, North and West. *Journalism Quarterly*, Autumn 1984, *61*, 483-492.

Determines news topics, especially those related to slavery, in 67 newspapers published in six geographic areas of the United States between 1820-1860. Of the total sample of 3,268 stories, this report was concerned with the 293 directly or indirectly about slavery.

Newspapers of the South, North, and West emphasized news about slavery, territorial expansion, and regional differences as the years progressed. The South was more alarmed than the other areas. All regions concentrated on Washington as a location of slavery events with much news originating here. In different time periods the stories clustered around important national events. The regions usually reflected similarities, but in many stories slavery was emphasized in regional contents.

Zaharopoulos, Thimios. The image of Greece in the U.S. press. *Journalism Quarterly*, Winter 1984, *61*, 901-905.

Examines the amount and kind of news about Greece published in six major U.S. newspapers. All topics dealing with Greece or Greeks were analyzed with principal attention placed on the number of articles, type and length of each item, and emerging trends. The coverage of Greece during the first seven months of 1983 was small, ranging from 24 articles in one paper to one in another. The coverage of Greece was topically broad. Most of the coverage was informative and dealt with Greek issues or concerns. The most publicized topic was the negotiations and agreement between Greece and the United States on military bases. Low priority was given to bad news. No correlation was found between a newspaper's total number of articles and the size of the Greek community in its publication city.

Kristiansen, Connie M., & Harding, Christina M. Moblization of health behavior by the press in Britain. *Journalism Quarterly*, Summer 1984, *61*, 364-370, 398.

Analyzes contents of articles about health issues in seven British national newspapers between July 2 and September 2, 1981. Budd's attention score, based upon headline size, page placement, length, and location within the newspaper, was the primary measure used. The 1,397 articles analyzed were assigned to at least one of 13 topics, resulting in 1,986 topics. Articles were also coded as event-oriented with little information or with adequate information and issue-oriented; whether they were favorable, neutral, or unfavorable towards the National Health Service; whether remedial action was given; sources of information. Articles about diseases were evaluated along nine dimensions. Most articles were event-oriented with little information about health issues; diseases received the most newsplay, followed by presentation, medical advances, the National Health Service, and environmental influences upon health. Numerous other findings are included in the report.

Bytwerk, Randall L. Handling unpleasant news in the East German press. *Journalism Quarterly*, Spring 1985, *62*, 136-138.

Studies how the German socialistic press handled the downing of Korean Airlines Flight 007 by a Soviet fighter in September, 1983. The 64 articles carried by *Neues Deutschland* were analyzed. Even though articles were attributed to the paper's own staff, 58% of all articles depended upon Soviet sources. After the Soviet explanation became clear, the paper used non-Soviet sources if the content agreed with that of the Soviet position. It consistently tied the event to the ongoing campaign against NATO missiles in Europe. No mention was made of the intensity of world reaction to the incident. After the initial reporting of the event, only a single reference was made to it during the remainder of 1983.

Martindale, Carolyn. Newspaper and wire-service leads in coverage of the 1980 campaign. *Journalism Quarterly*, Summer 1984, *61*, 339-345.

Compares wire-service and newspaper coverage of selected events in the 1980 presidential campaign to determine similarities or differences between the two. Seven comparable events in each candidate's campaign were selected for study in five metropolitan newspapers having their own reporters. The topics in the first three inches of the 98 stories were coded.

The percentage of agreement between individual media in reference to specific topics was computed. Chi-square was used to measure the significance of the agreement between the wire services and the newspapers. The information in the stories varied from paper to paper and showed no marked similarity with the wire service stories which also were sometimes dissimilar. More agreement was found in the stories about Reagan than those of Carter.

GIFFARD, C. ANTHONY. The Inter Press Service: New information for a new order. *Journalism Quarterly,* Spring 1985, *62,* 17-23, 44.

Analyzes the content of the Inter Press Service Third World News Agency (IPS) to determine if it is providing new information for a new order, as claimed, and whether its copy is biased against Western nations. The two basic services, English and Spanish, were analyzed separately for October, 1982. For the English network 458 reports were coded; for the Spanish, 392. They were coded for more than 110 variables, including length, location of the event, topics, and nationality and capacity of the people involved. The 78 countries represented in the reports were categorized by level of development and by geographical region. Approximately 84% of the news carried by the English network and 74% by the Spanish had a Third World source. The English network covered 65 countries, the Spanish, 57. The geographical region covered most was Latin America. The regional distribution of the English wire tended to be more balanced than that of the major international agencies. The reports are relatively long. There is more criticism of the Third World than of the West. Political news was by far the biggest category; the most frequent single theme was development of the Third World.

TARPLEY, J. DOUGLAS. American newsmagazine coverage of the Supreme Court, 1978-81. *Journalism Quarterly,* Winter 1984, *61,* 801-804, 826.

Examines the extent and type of reporting about the Supreme Court found in the three U.S. newsmagazines and compares the results with those from an earlier study. Each story found in all issues of the three magazines published from October 1978, through June 1981, (covering three entire sessions) was coded in regard to its legal focus, its general type, type of reporting, and location in the magazine. Some relatively peripheral items, such as graphic elements, were also noted. An average of 24 decisions was reported, with *Newsweek* and *Time* publishing 80% of them. The majority of the stories (63%) dealt with court decisions whereas articles about the Court in general accounted for about 23%. Reporting was generally positive. Contrary to expectation, stories about all Court decisions dealing with the press (47%) were fewer than stories dealing with nonmedia stories (53%).

WULFEMEYER, K. TIM. How and why anonymous attribution is used by *Time* and *Newsweek. Journalism Quarterly,* Spring 1985, *62,* 81-86, 126.

Examines the use of anonymous attribution in 388 stories from the National/Nation and International/World sections in 12 issues of each *Newsweek* and *Time* in 1982. For each story the presence, number, and types of anonymous sources were recorded. They were quoted in 81% of the stories, more in international than national stories. In all, 1,274 unattributed quotations were included, 583 in *Time* and 691 in *Newsweek.* "High status" sources were quoted more often, followed by "neutral," "subordinates," "experts," "pro-con," and "associates." Some type of "official" was the most common specific source quoted, followed by aide, diplomat, and "expert."

TSANG, KUO-JEN. News photos in *Time* and *Newsweek. Journalism Quarterly,* Autumn 1984, *61,* 578-584, 723.

Investigates how news pictures in *Time* and *Newsweek* have portrayed the United States and the world. Ten issues of each magazine in 1971, 1976, and 1980 were randomly selected. All pictures in these 60 issues were counted and measured by using square inches and were classified according to subject matter, source, country, and magazine section. Categories for classifying the subject of each picture were violent pictures with three subcategories and nonviolent ones with eight subdivisions. The total of 4,035 news magazines consumed 48,412 square inches of space. Pictures about the United States were the dominant photographs with pictures about foreign nations receiving about one-third of the treatment of the United States. International news pictures were more violent; those of the United States, nonviolent. The most widely used subject in both magazines was human interest; the least used, environment and architecture. There was no significant difference between the two magazines in regard to the pictures' sources, sections, countries, and subjects.

Ogles, Robert M., & Howard, Herbert H. Father Coughlin in the Periodical Press, 1931-1942. *Journalism Quarterly*, Summer 1984, *61*, 280-286, 363.

Analyzes press coverage of the Rev. Charles E. Coughlin during 1931-1942 in seven periodicals which were indexed by *Reader's Guide to Periodical Literature* and which included 10 or more articles about Coughlin. From these publications 99 articles were analyzed. The magazines were of three types: journals of opinion and commentary, news weeklies, religious magazines. The analysis resulted into several types of data: assertion analysis for direction, content analysis for frequency of reference to several major themes, changes in direction and major themes overtime, and differences between bylined and unsigned articles. The trend analysis for direction supported the view that the press was negative in its coverage of Coughlin. No differences were found in direction and authorship nor in major themes found among the three types of periodicals.

Smith, Ron F., & Decker-Amos, Linda. Of lasting interest? A study of change in the content of the *Reader's Digest*. *Journalism Quarterly*, Spring 1985, *62*, 127-131.

Determines if the *Reader's Digest* has changed in editorial formulas and content during 40 years. Six months issues from each two-year period from the years 1940 and 1941, 1960 and 1962, and 1980 and 1981 were sampled. Coders decided if three types of statements applied to each article: one drawn from criticisms of the *Digest*; another concerning stereotyping; the third, content of the articles. There has been a shift from hard-news stories and biographies towards self-improvement topics. There has been a steady increase of articles about sex, consumer affairs, and health issues. The categories of medicine, controversies, and animals remained consistently represented. The percentage of optimistic articles increased. Little change was found in the portrayal of women in traditional roles.

Lundburg, Lea J. Comprehensiveness of coverage of tropical rain deforestation. *Journalism Quarterly*, Summer 1984, *61*, 378-382.

Reports upon consumer-magazine coverage of deforestation of virgin tropical rain forests in lesser developed equatorial nations. Information from eight feature length articles published between 1980 and 1983 was categorized under five headings. Percentages of facts found in each magazine and in all magazines together per category were determined, as well as the overall total coverage. Comprehensive coverage for the categories ranged from 82.5% for causes to 38% for documentation and solutions. The total percentage coverage of 52.6% showed that slightly over half of potential information on the topic was included. When compared with information in scientific journals, the factual information in the magazine articles was accurate. Questionable terminology was found in 25% of the articles.

VINCENT, RICHARD C. Broadcast research productivity of U.S. communications programs, 1976-83. *Journalism Quarterly,* Winter 1984, *61,* 841-846.

Analyzes 734 broadcast articles by 978 U.S. communications scholars in 13 journals to determine which university programs are most active and have the most active graduate students in publishing and to ascertain trends among faculty members. The authors represented 167 institutions. The 54 highest ranking institutions for faculty publications and the top 14 programs for student publications are listed. Assistant professors accounted for 39.9% of the broadcasting publications followed by associates with 21.9% and full professors with 21.6%.

WILHOIT, FRANCES GOINS. Student research productivity: Analysis of *Journalism Abstracts. Journalism Quarterly,* Autumn 1984, *61,* 655-661.

Analyzes 373 abstracts of graduate theses and dissertations published in Volume 20, 1982, of *Journalism Abstracts,* describes trends of research, and identifies institutions most actively involved in this research. The abstracts were categorized under four headings: topics, broad subject matter of mass communication, research methods used, and institutions and faculty advisors of students' research. The most frequently cited topics were uses and gratification of mass media, news and derivatives of news, and editorial policy and bias. The broad subject areas of students' research paralleled those of the published scholars in two earlier samples. Masters theses most often used one of three research methods: survey, content analysis, historical analysis. The dissertations used a greater variety of methods. Most of the studies were concerned with print media.

CARRINGTON, BRUCE, & SHORT, GEOFF. Comics – A medium for racism. *English in Education,* Summer 1984, *18*(2), 10-14.

Surveys 10 issues of each of 15 comics published in Great Britain to determine their role in a multiracial society and compares the results with those in a similar study conducted 11 years earlier. Non-whites were found in 23 stories and none in the comics produced for the youngest children. Their personality traits were limited and offensive. The investigators concluded that the depiction of non-whites was substantially the same as in the earlier study and that publishers have done little to bring comics into the late twentieth century because of the reinforcement of traditional sex roles and the exclusion of non-whites.

WILCOX, GARY B., & MORIARITY, SANDRA E. Humorous advertising in the *Post,* 1920-1939. *Journalism Quarterly,* Summer 1984, *61,* 436-439.

Investigates the use of humor as an advertising appeal during the 1920s and the 1930s. A random sampling procedure resulted in a sample size of 100 issues of the *Saturday Evening Post,* 50 for each decade. All ads of a half page or longer in length were analyzed for total number of ads using humor, those using humor in the copy, illustrations, comic strips, product category, and page location. Independent variables were the decade, type of humor, and product category. Dependent variable was frequency of occurrence expressed as a percentage of the total. Significantly more advertisements used humor during the 1920s than during the 1930s. Humor in the illustration was more common in the early decade while comic strips were more prevalent in the later period. Humor was defined based upon articles dealing with the topic published in the periods studied.

HEALEY, JOHN S., & KASSARJIAN, HAROLD H. Advertising substantiation and advertiser response: A content analysis of magazine advertisements. *Journal of Marketing*, Winter 1983, *47*(1), 107-117.

Measures change in the content of advertisements before and after the institution of the FTC advertising substantiation program. Every ad for every brand of four products (antiperspirants, pet foods; controls: skin lotions, creams and prepared foods) found in 16 magazines for 1970 and 1976 was categorized according to any claim made, level of emphasis placed on a given attribute, level of verification, and informativeness. Each of 31 judges evaluated approximately 20 ads apiece which had been photographed on 35mm slides and presented on a projection screen. In the 468 advertisements the attribute claims dropped for the experimental products but not the control ones. The types of evidence supporting claims have changed, but the level of informativeness of magazine ads has not.

LATIMER, MARGARET K. Policy issues and personal images in political advertising in state election. *Journalism Quarterly*, Winter 1984, *61*, 776-784, 852.

Analyzes the content of political advertising in 55 Alabama weekly newspapers during the 1982 campaigns for statewide office and for the state senate. Personally-oriented and policy-oriented advertisements were rated and compared according to size, use of visuals, personal coverage, policy coverage for incumbents versus challengers, competitive versus noncompetitive contents, general election for governor versus party primaries, candidates in lower statewide races versus those in the senate races. Of primary interest was the effectiveness of ads with personalized ad content versus those with issue content. An overwhelming majority of the ads focused heavily on a personal theme. Policy messages were stronger in competitive senate races than in noncompetitive ones and by challengers over incumbent senators.

SHERER, MICHAEL D. Invasion of Poland photos in four American newspapers. *Journalism Quarterly*, Summer 1984, *61*, 422-426.

Examines photographs published in four city newspapers that dealt with the invasion of Poland by the German armed forces on September 1, 1939. Two themes emerged from the 164 different photographs: the awesomeness of the German military force, Hitler and his military leaders conducting the war in Poland, and the war from the Polish people's point of view. The latter theme appeared late in American newspapers. Only five photographs dealt with either German wounded or dead, all of which were from a German source.

III-3 Readability

BOSTIAN, LLOYD R., & BYRNE, TOMAS E. Comprehension of styles of science writing. *Journalism Quarterly*, Autumn 1984, *61*, 676-678.

Applies the cloze procedure to scientific materials written in active, passive, or nominal styles. Three sets of test materials, one for each style, were prepared, based upon a technical journal article concerning an agronomic crop's need for a nutrient. The cloze forms contained approximately 300 words with every fifth word deleted. Completed versions were received from 97 university freshmen and sophomore students (34, active; 33, passive; 30, nominal). Only exact words were considered correct. Scoring was based upon percentage correct. The cloze procedure clearly discriminated among the three styles with the active style significantly the easiest to comprehend, followed by the passive style. The nominal style was the most difficult. No time limits were given for the completion of the task, but students who took more timed scored significantly lower.

III-4 Reading interests, preferences, and habits

Sbaratta, Philip. Reading meets writing in freshman English. *Teaching English in the Two-Year College*, Winter 1982, *8*, 131-133.

Reports that college composition students have meager precollege writing and reading experiences and concommitant attitudes towards reading. Of 100 students who responded to an inventory about prior reading habits and experiences, over 70% could not recall a novel they enjoyed, had never read a book for enjoyment, and reported they disliked reading. Sixty percent did no reading on a regular basis outside school work; 36% read a magazine at least once a month; 30% read a newspaper at least twice a week; and 21% had never completed a novel.

Brittain, Mary M. Reading habits and patterns of entering college students in standard and compensatory classes. In George H. McNinch (Ed.) *Reading in the Disciplines.* Second Yearbook of the American Reading Forum. Athens, Georgia: The American Reading Forum, 1982, 77-79.

Compares the reading habits and behaviors of undergraduates enrolled in a developmental reading program (n = 17) with those enrolled in a freshman English course (n = 16). The groups differed in terms of ethnic background, age, sex, employment, and career goals. Among other findings were that more English students were read to as children, could be considered heavy readers (more than two hours a day), and reported specific book titles and authors. Reading students read newspapers more frequently, shared their reading with their families more often, and reported more difficulties with reading.

Andreasen, Margaret, & Steeves, H. Leslie. Assertive response to on the job sex discrimination as a possible predictor of newspaper reading behavior. *Newspaper Research Journal*, Summer 1984, *5*(4), 27-39.

Compares the newspaper reading habits and preferences of 106 assertive and 93 unassertive women. These subjects reported in diary form their general activities, broadcast and print media use at half hour intervals for seven 24-hour days. Assertives were defined as those women who indicated they had taken action to change an unsatisfactory situation. Dependent variables were newspaper content categories, time spent reading the newspaper, and reading style (skimming, reading carefully). Assertives preferred national and foreign news; unassertives, home and family, local statistics, and women's sections. When the subjects were divided into two educational groups, assertives at both levels were heavier readers of national, foreign, and local news and features, editorials, and classified ads, while unassertives at both levels reported greater readership of sports and local statistics sections. Assertive women spent less time on newspaper reading but reported reading a slightly greater number of newspapers than unassertive women did.

Sweet, Robert, & Braun, Peter. The reading interest of older adults. *Reading - Canada - Lecture*, October 1983, *2*(3), 2-10.

Determines relationships between reader characteristics (sex, educational level achieved, prior reading habits) and reading interests among 852 Canadian adults aged 65 and older. Responses to 13 book categories were factor analyzed, resulting in four interest scales: emotional literature, action fiction, people events, self-orientation. A 2x2x2 (gender by education by previous reading habits) multivariate analysis of variance was used to analyze the interest scale scores. Distinct profiles of reading interests resulted for each group of older readers. Subjects with more than eight years of schooling had significantly higher mean scores on all reading interest scales. Current reading interests of the subjects reflected previous reading interests. Males displayed greater interest in action fiction while females preferred emotional literature.

Check, John F., & Toellner, Sharon. Reading patterns of adults. *Reading Improvement*, Summer 1984, *21*, 82-88.

Compares the reading habits, purposes for reading, attitudes towards reading, leisure activities, and types of reading of 20 adults residing in nursing homes and 20 adults living in regular homes all between the ages of 70 and beyond 90. Questionnaires were administered individually. Females outnumbered males by a 3 to 1 ratio. Most of the subjects had received an elementary education or beyond. Those in nursing homes read less than those in regular homes. For all ages and in both residential groups, television viewing was the chief competitor for their leisure time. Both groups stated that they enjoyed reading, preferred newspaper and magazine reading, and gave high priority to radio listening. Their three primary purposes for reading were to understand current events, to obtain personal enjoyment, and to satisfy spiritual needs.

Carsello, Carmen, J., & Creaser, James W. Reading attitudes and problems of the elderly. In George H. McNinch (Ed.) *Reading in the Disciplines*. Second Yearbook of the American Reading Forum. Athens, Georgia: The American Reading Forum, 1982, 82-85.

Investigates the reading attitudes and problems of adults over 50 years of age. Subjects (n = 106) were 31 males and 75 females of all socioeconomic levels and varying levels of education. The *Survey of Elderly Reading Attitudes*, which requires the subject to agree or disagree with 75 statements, was administered individually. Results were examined for groups seperated by sex, age, and years of education. In general, there were larger differences between the age groups than between the sexes or educational levels. The largest differences between the older and younger readers were for the items "Reading helps me not to feel lonely," and "I find my attention wanders when I read."

Duncan, Patricia H., & Goggin, William F. Reading habits, patterns, and interests of older active readers. In George H. McNinch (Ed.) *Reading in the Disciplines*. Second Yearbook of the American Reading Forum. Athens, Georgia: The American Reading Forum, 1982, 73-77.

Investigates the reading habits and behaviors of individuals in their retirement years who are active lifetime readers. Subjects (n = 21) were 17 women and 4 men between the ages of 70 and 95 with a variety of educational and family backgrounds. Each subject was interviewed for 60 to 90 minutes. An interview guide was followed and the session tape recorded. Among other findings were that active readers started reading early with support and guidance from their family, they were aware of various literary sources and continued to enjoy preferred types of material, and that reading was personal for these subjects, who were content with a minimum of social interaction related to their reading.

Mehnert, Klaus. *The Russians & Their Favorite Books*. Stanford, California: Hoover Institution Press, 1983.

Asks various Russian individuals to indicate which on the investigator's list of authors were favorites. Data, collected during three trips to Russia, were taken from anyone who would talk with the author as well as from librarians and booksellers. From the responses, a list of the 24 best liked Russian authors was compiled. Since 18 of the top 24 were born between 1924 and 1934, their major writing occurred after Stalin's death. Background information is provided about each of the 24 authors (most were personally interviewed), and their writings are briefly described.

Bogart, Leo. The public's use and perception of newspapers. *Public Opinion Quarterly*, Winter 1984, *48*, 709-719.

Examines the public's attitude toward the press in general and specific papers most often read. In this national probability sample survey, 1,979 adults were interviewed by interviewers who carried copies of previous weekday's papers necessary for some of the questions asked. The results showed, among many findings, a considerable turnover of readership from one day to the next. The majority of these subjects did not perceive "the power of the press" to be great, relied on television for information about issues which concerned them and for learning first about big news events, preferred papers emphasizing news rather than feature stories, and usually read international and national news. The critics of local newspapers were mainly the better educated and the most faithful readers. Readership and interest were higher for longer articles, but items of different lengths below 18 column inches showed virtually no difference.

Zinkhan, George M.; Gelb, Betsy D.; & Martin, Claude R. The cloze procedure. *Journal of Advertising Research*, June/July 1983, *23*(3), 15-20.

Tests attitudes towards advertisements, message recall of them, and liking/disliking ads by means of the cloze procedure, an eight-point Likert-like scale, and a recall test. A convenience sample of 525 adults was divided into two groups: 420 to estimate the model and 105 to validate the findings. Data were gathered in three sessions. First, the subjects completed a cloze of 21 printed advertisements representing a wide range of products. During the second session they saw the ads and indicated their enjoyment of them. The third session was the day-after tests on facts from the ads. The results of Pearson correlation coefficients and multivariate analysis showed that the ability to predict the message structure was related to both the enjoyment and recall of the message and that message enjoyment and message recall were also related significantly. Details of the validation procedures with the second group of subjects are given.

III-5 Readership

Guthrie, John T., & Seifert, Mary. *Measuring Readership: Rationale and Technique*. Paris, France: UNESCO, 1984.

Reviews literature on factors determining the nature and extent of reading as an activity as well as the findings of previous surveys of readership. It is posited that a well-rounded description of an individual's reading activities should include information about three elements: medium, content, and volume. A readership index, the Reading Activity Inventory, consisting of these elements is developed and described. Information collected using the instrument in a pilot test with 109 interviewees is presented. Ten readership figures were derived for each person interviewed. The figures were based on the number of minutes per week spent reading in each of these categories: newspaper information, newspaper fiction/viewpoint, newspaper reference, book information, book fiction, book reference, magazine information, magazine fiction, magazine reference, and brief documents. The resulting readership index for the community from which the sample was drawn indicated that the typical person spent 2.6 hours reading each day, with males averaging 1.9 hours daily and females, 3.1 hours. Volume of reading by educational level and occupation group was analyzed. Educational level influenced book reading more strongly than newspaper reading. The reading of magazines and brief documents was also influenced by educational attainment level. Among various media, newspapers were read for the greatest amount of time (39 minutes per day), while books were read for an average of 24 minutes daily and magazines, 8 minutes per day. Informational reading was the highest content category (46 minutes daily), followed by brief documents (37 minutes), reference reading (11 minutes), and fiction (7 minutes).

NATIONAL BOOK DEVELOPMENT COUNCIL of SINGAPORE. *First National Readership Survey.* Singapore: National Book Development Council of Singapore, 1981.

Conducts a survey of reading habits, book purchase patterns, and library usage of 1,953 Singapore citizens from 753 households. Of the respondents, 53.8% were males; 46.2%, females. The majority (71.2%) were Chinese. Respondents were between the ages of 15 and 49 and were not full time students. Trained interviewers collected the data. More than 90% of respondents spent some time reading each week; only 2.7% did no reading at all. Nonbook readers constituted 37.9% of the sample, and 33.2% were nonmagazine readers. Another 33.7% said that they read books less than three hours a week. In the 12 months preceding the interview, 41.4% stated that they had not read a book. More than one-third did not own a book. Most respondents did not belong to a library. Almost 50% identified watching TV as the leisure activity they spent most time with, while 15% identified music and 13.1% identified reading as the leisure time activity they engaged in most heavily.

KEBBEL, GARY. Strength of political activity in predicting newspaper use. *Newspaper Research Journal*, Winter 1985, *6*(2), 1-7.

Assesses the relative importance of demographic and behaviorial variables for newspaper readership. As a part of a larger study, 1,635 people across the United States were interviewed. The dependent variable was newspaper use; independent variables were gender, age, education, income, and a political activity index devised by the investigator. Multivariate analysis showed that all demographic variables were statistically significant in predicting newspaper readership. The age-income-political activity and age-education-political activity path models were constructed from the log-linear technique. The best predictor of newspaper readership in both models was political activity followed by age. The worst was education or income, depending upon the model.

VANDEN BERGH, BRUCE G.; FLETCHER, ALAN D.; & ADRIAN, MARY A. Local business press: New phenomenon in the news marketplace. *Journalism Quarterly*, Autumn 1984, *61*, 645-649.

Characterizes local business publications according to their editors and publishers. Responses to a four-page questionnaire were completed by 43 respondents, representing 48 local business publications. The questionnaire was designed to investigate how publishers determine reader involvement, how they position their publications in the local media marketplace, audience composition, factors leading to success, and problems facing the industry. The total business publication industry has been one of the fastest growing sectors of the media market, the largest growth period occurring between 1976 and 1980. Many reasons were given for this success. The styles of these publications differ substantially. Target readers are affluent and influential. Problems faced by these publishers are advertiser support, circulation, media competition, and good editorial material. The local business publication is unique in that it is neither newspaper nor magazine.

RADWAY, JANICE. Interpretive communities and variable literacies: The functions of romance reading. *Daedalus*, Summer 1984, *113*, 49-73.

Interviews 16 women, selected by a bookstore clerk, in two groups about their reading of romances. Using an ethnographic interviewing technique to map the realm of the romance reader, the investigator learned about their definitions of this genre, their reasons for reading this type of book, and their various interpretations of materials read. These women read for enjoyment or escape and for information as they interpreted romance books. Five of these subjects who were interviewed in depth indicated that romance reading appeared to be both an assertion of a deeply felt psychological need and a means of satisfying that need.

Some explained this type of reading was not only pleasurable but also necessary; several believed their reading to be an addiction. The investigator provides an extensive interpretation of the subjects' answers through inferences.

WOLF, RITA, & GROTTA, GERALD L. Images: A question of readership. *Newspaper Research Journal*, Winter 1985, *6*(2), 30-36.

Inquires if readers will be more likely to read and to remember the content of newspaper articles accompanied by certain kinds of photographs. Two photographs were judged, one having qualities cited necessary for the selection of newspaper photographs and the other without these qualities (a portrait). Three alternate newspaper front pages with three different photographs along with printed materials were prepared. The subjects were 95 college students divided into three sections. After they read their form of the newspaper, they responded to 12 questions measuring content and their recall and their reasons for reading particular stories. The results indicated that a large photograph increased readership of the story it accompanied. Subjects spent more time reading this story but recalled more information from the headline and cutline than from the story itself. The portrait had exceptionally strong appeal for readers.

GERACI, PHILIP C. Newspaper illustrations and readership: Is *USA TODAY* on target? *Journalism Quarterly*, Summer 1984, *61*, 409-413.

Compares content of pictures published in *USA Today* during one week with readership statistics generated by the *Continuing Study of Newspaper Reading*. The 474 major illustrations were coded and tabulated in 12 categories and compared with those published in 138 daily newspapers analyzed in 1939-50 in the Continuing Study. Categories with similar emphasis on illustrations were accidents and disasters, crime, international and national news, and science and technology. Greatest differences were in sports and political news. It was concluded that *USA Today* is edited for men because of the number of illustrations in the areas of sports and politics.

REID, LEONARD N., & SOLEY, LAWRENCE C. Decorative models and the readership of magazine ads. *Journal of Advertising Research*, April/May 1983, *23*(2), 27-32.

Determines if there are male readership differences in magazine advertising products in which decorative male and female models are portrayed separately, together, or not at all. A panel of three male judges selected 126 cigarette, liquor, and car advertisements from *Time*, *Newsweek*, and *Sports Illustrated*. These were categorized as female model only, male model only, male and female together, product only. Analysis of covariance with "noted" and "read most" as dependent variables were used to analyze the data. The presence of a decorative female model alone obtained significantly higher "noting" scores than the presence of a male model or a male and female model together. The latter did not obtain significantly higher "noting" scores than ads showing the product alone. While the different model types affected only the "noting" ads, the type of product differentially affected both the "noting" and "reading" of ads by male readers.

SOLEY, LAWRENCE C., & REID, LEONARD N. Industrial ad readership as a function of headline type. *Journal of Advertising*, 1983, *12*,(1), 34-38.

Compares the effects of seven headline types on three measures of industrial ad readership. Ad headlines were obtained from issues of *Iron Age*, an industrial magazine. Two coders coded the headlines in 375 one-page, three/four color ads into the seven classifications. Readership scores on the ads were percentages of readers who: 1) noticed the ad, 2) started to read some of the ad, and 3) read half or more of the copy. None of the mean readership scores differed significantly by headline type.

III-6 Factors influencing library use

BRODY, E.W. Impact of cable television on library borrowing. *Journalism Quarterly,* Autumn 1984, *61,* 686-689.

Assesses the impact of cable television on library borrowings (adult, juvenile, audiovisual) between June 1979, and June 1983, in a large southern city and its adjacent unincorporated areas and one of its affluent suburbs. The independent variables for the study were the number of cable television subscribers in each location; dependent variables were the volume of borrowings in each place. Pearson product moment correlation coefficients were calculated for each independent variable with each set of dependent variables. The hypothesis that access to cable television produces declines in library borrowings was rejected only for adult borrowings in the city; the values of Pearson's r for juvenile and adult borrowings in the suburb were found to be positive and significant for the suburban city.

RAZZANO, BARBARA WILL. Creating the library habit. *Library Journal,* February 15, 1985, *110,* 111-114.

Surveys 1,240 adult library users of 28 libraries to provide statistical data on current and future use patterns in public libraries in relation to youth services programs. Experiences with libraries during youth were reported by 85% of the subjects. One-half of those not using a library in their youth had no access to a library. Persons age 50 or younger recalled first visiting a public library at a significantly younger age than their older counterparts. Of adults who visited libraries under the age of 12, 55% continued to use the library throughout childhood on a weekly or monthly basis. Most current users reported visiting the library for the purpose of borrowing books, but as teenagers they went to the library for homework or research assignments. They reported using the library as much when they were teens as before but had different demands. The majority of the 899 who were parents reported their children visited the library on a regular basis.

HOULE, RACHEL, & MONTMARQUETTE, CLAUDE. An empirical analysis of loans by school libraries. *The Alberta Journal of Educational Research,* June 1984, *30,* 104-114.

Measures the influence of selected factors on loans of printed materials by 877 public and private elementary schools and 350 public and private secondary school libraries across Quebec. In the production function approach used, library loans were the output; and library resources and many policy and interaction variables were inputs. Data were derived from yearly school library surveys yielding quantitative information and school data files. Statistical techniques used were probit analysis to estimate the probability of loans equation, and ordinary least squares to estimate the number of loans equation. The number of books and the number of school library operating hours were the most important factors affecting the probability and number of loans made. The size of the library area at the high school level and the seating accommodation at the elementary level were important physical variables. Other possible factors are discussed.

CACL COMMITTEE ON REFERENCE MATERIALS FOR CHILDREN. Children's reference services survey. *Canadian Library Journal,* February 1984, *41,* 16-18.

Uses a questionnaire survey sent to children and to public library staff to evaluate reference service to children in public libraries. Responses were received from 1,635 fourth-, fifth-, and sixth-grade children in 23 schools in one Canadian city. All library staff in 13 branches of the public library were reported as answering the second questionnaire which was designed to find out how children ask questions as well as how often those questions lead to a satisfactory response at the library. Only 18% of children reported that they had not used the library during the preceding year. Children reported the primrary reason for using the library was for fun reading (72%) followed by for finding information (44%). Over three-fourths of children said that they did find the information they needed to know at the library, and 87% said that they could read and understand the library books they were given. Library staff reported that in almost half the cases, direct help was given to children and that in 51.4% of cases, several books were found on the topic.

III-7 History of libraries

EDENBACH, JOAN. The Redwood Library of Newport: Its history as a social library. *Current Studies in Librarianship*, Spring/Fall 1984, *8*(1 & 2), 17-27.

Traces the history of the Redwood Library from its beginning in 1747 until today. It was known as a social library because voluntary individuals funded the purchase of books. The social library as an institution grew out of the social club idea. Title to all books was retained by shareholders, but their use was for all members. During the Revolutionary War when the library was occupied as an officer's club by the British at least half of the collection disappeared. In 1810, with gifts from the public, books were replaced and the building repaired. Few other social libraries survived after the Civil War. Unlike them, the Redwood continued to thrive through the twentieth century. The general collection of books has increased from the original 866 titles to 142,736 volumes in 1983. Fifty percent of the circulation is fiction.

VAKKARI, PERTTI. Public library research in Finland: Origins and recent findings. *Scandinavian Public Library Quarterly*, 1985, *18*(1), 15-18.

Reviews Finnish library research. The origins of this research were twofold: statistical analyses of the development of "people's libraries" in the late 19th and early 20th centuries; and historical studies of books, libraries, and culture, the latter appearing in the 1920s. Library research was at a low ebb in the 1950s and 1960s but increased in the 1970s. It was shown that supply in a municipality affected the volume of reading and the diversity of views about the functions of a book. Although the number of libraries fell in the 1970s, both use and supply of books increased. Literacy in Finland in the 18th and 19th centuries was not just for the privileged few. Qualitative and quantitative changes in book reading were noted.

CHRIST, KARL. *The Handbook of Medieval Library History.* Translated and edited by Theophil M. Otto. Metuchen, N.J. & London: The Scarecrow Press, Inc., 1984.

Translates a chapter of an earlier volume on library history, that dealing with medieval libraries. A chrono-geographical organizational scheme is used. The Middle Ages is treated in three periods: early, middle, and late. Within each time period, the material is presented by countries and occasionally by particular cities. Additionally, important individuals or types of institutions (monastaries, cathedrals) are used to subdivide the large time periods. The history begins with the fifth and sixth centuries when the libraries of antiquity had become extinct. Byzantine and Islamic libraries are not considered, but rather those in the western Romano-Germanic society. The middle period of library history is considered to commence with Charlemagne, and the late period as beginning with the onset of the thirteenth century open universities and their accompanying libraries began to rise. The book of antiquity was the papyrus scroll, while that of the Middle Ages was the parchment codex. The libraries of ancient times were usually founded by the state and served various governmental, recreational, scientific, and educational needs. In the Middle Ages, library affairs were in the hands of religious organizations and served the church, its teachers, and the training and education of the clergy. Religious writings outnumbered anything else. The paper library at Avignon and the library of the Sorbonne in Paris were as large as 2,000 volumes.

III-8 School and college libraries

McCabe, Patrick P. Stretch your budgets: Have schools and public libraries cooperate. *Journal of Reading*, April 1984, *27*, 632-635.

Seeks to determine relationships of school and public libraries by surveying 29 librarians in a large suburban area near New York City. The results of the questionnaire revealed that most public libraries were open 52 hours per week and that many schools, especially elementary schools, were located within walking distance of the libraries. Twelve librarians stated that someone from local schools had contacted them to suggest a liaison, while 21 of the libraries had suggested cooperation with schools. Services provided by libraries, restraints on cooperative efforts between schools and libraries, and recommendations for an effective liaison between schools and libraries are included.

Oltmanns, Gail, & Schuh, John H. Purposes and uses of residence hall libraries. *College & Research Libraries*, March 1985, *46*, 172-177.

Investigates student use and perceptions of residence hall libraries at Indiana University. The first part of the study was a telephone survey in which 735 students living in residence halls answered structured questions about their libraries. In the second part of the study 535 users of the residence hall libraries completed a questionnaire in the libraries. Most subjects in each survey stated that they used the library as a place to study or to use magazines and newspapers. The users of the library frequented the library more often than those in the telephone survey. Those who did not use the libraries indicated they used other libraries or could not obtain the materials they needed in the residence hall libraries.

Hilton, Anne. A new note: A fresh approach to user education. *Education Libraries Bulletin*, Autumn 1984, *27*(3), 1-11.

Compares library user education in four British polytechnic libraries with an American model. Differences in methodology, library organization, and staff selection and training are delineated. One key difference between the schools in the two countries is that students in the United States select courses and those in Great Britain do not. User education programs in both countries are comprised of orientation and in-depth bibliographic knowledge, but the procedures for attaining each part differ. More freedom to become acquainted with the library and the development of critical analysis in the use of library tools are characteristic of library user education in the United States but not in Great Britain. Other differences are noted.

Person, Ruth, J., & Phifer, Kenneth O. Support for literacy education in academic libraries. *College & Research Libraries*, March 1985, *46*, 147-152.

Surveys directors of 20 matched pairs of community colleges and four-year college libraries in eight Eastern states concerning the current status of academic library services which support literacy education. Directors of these libraries responded to a questionnaire consisting of closed and open-ended questions. The results showed that higher-education institutions and their libraries are making a concerted effort to solve literacy problems among students and appropriate community members. More than three-fourths of the respondents viewed literacy as a problem in their environment. All of the colleges surveyed had literacy-related programs, almost all of these received library support.

III-9 Social and cultural influences on reading

BLOOME, DAVID. Reading as a social process. *Language Arts*, February 1985, *62*, 134-142.

Describes three dimensions of reading as a social process: social contexts of reading, reading as a cultural activity, and reading as a socio-cognitive process. Examples and research pertaining to each dimension are included. Implications for teaching, in the form of questions, are suggested.

FLORES, JUAN M. Let's discuss Chicano adolescent literature. *Reading Horizons*, Winter 1985, *25*, 129-132.

Asks whether there are differences in the perceptions of Chicano adolescents and librarians concerning three selected samples of adolescent literature. Ten librarians and 54 Chicano adolescents enrolled in a high school equivalency program were asked to evaluate three books using a semantic differential scale and another instrument. No significant differences were found between the two groups in their perceptions of the books.

III-10 Literacy

CLIFFORD, GERALDINE JONÇICH. Buch und Lesen: Historical perspectives on literacy and schooling. *Review of Educational Research*, Winter 1984, *54*, 472-500.

Reviews theory, research, and opinions about literacy from an historical point of view. The topics explored included measurement of literacy at different times, concepts of functional literacy, literacy as thinking, extension to other fields (scientific, technical, civic, economic, literacies), Biblical literacy, and universal literacy and schooling.

HARROP, SYLVIA A. Adult education and literacy: The importance of post-school education for literacy levels in the eighteenth and nineteenth centuries. *History of Education*, September 1984, *13*, 191-205.

Reviews studies concerning the status of literacy in the eighteenth and nineteenth centuries in Great Britain. These studies showed that there was no direct link between the availability of schooling and literacy levels and that many factors were involved in producing a literate society. Until the mid-nineteenth century any formal education working-class children received was often interrupted and short; many left school without literacy skills. The principal measure of literacy was the signing of the marriage register. Throughout the report are examples of self instruction or instruction provided by agencies other than schools, including Sunday schools, circulating schools, or adult schools, largely sponsored by labor organizations. For those who had attained some literacy skills, there were numerous opportunities where these skills could be extended. One of the greatest difficulties in the improvement of literacy was the lack of suitable reading materials. Three groups of people who seemed to have been neglected in the pursuit of literacy were women, residents of rural areas, and those at the lower end of the social scale.

ROTH, RITA. Schooling, literacy acquisition and cultural transmission. *Journal of Education*, Fall 1984, *166*, 291-308.

Reviews research and opinions concerned with schooling and the acquisition of literacy. Three definitions of literacy as found in the 1975 Bullock report are explained from three social science research orientations: the Positivist (skills enabling decoding), Interpretative (comprehension), and Critical (application to reader's life). The writer applies the ideas expressed to the language experience approach.

RIGG, PAT, & KAZEMEK, FRANCIS. Literacy and elders: What we know and what we need to know. *Educational Gerontology*, September-December 1983, *9*, 417-424.

Reviews recent research on literacy needs and interests of older adults. Little research has been done in these areas. Although today there is a paucity of research about the reading behavior and interests of older adults, educators, researchers, and writers continue to advocate certain practices and positions. Empirical research into the perceptions of reading and writing held by the elderly is needed. It was recommended that this research should assess the reading/writing needs and interests of the elderly and examine effects societal expectations of the elderly have on their reading/writing behavior and interests.

MARVIN, CAROLYN. Constructed and reconstructed discourse inscription and talk in the history of literacy. *Communication Research*, October 1984, *11*, 563-594.

Identifies four models of literacy and discusses them theoretically. The traditionally received skills model, defined as some criterion of skill in reading and writing, is, according to the writer, increasingly rejected by literacy scholars. The latter employ either a functional model of literacy as an instrument of power relations or a semiotic marker model of literacy. The grand theory model was the fourth one identified and, in contrast with the received model, is pessimistic about the long-term social and political effects of literacy. It was believed that literacy consists of written and oral practices organized around tests in a particular culture.

JUNGE, BARBARA JACKSON, & TEGEGNE, DEBEBE. The effects of liberation from illiteracy on the lives of 31 women: A case study. *Journal of Reading*, April 1985, *28*, 606-613.

Reports the findings of one-hour interviews with each of 31 Ethiopian women who are native speakers of Amharic. The subjects were both rural and urban neoliterates from two locations, ranged in age from 17 to 50, attended varying number of literacy rounds, represented the main occupations for females, and were unable to read or write before the literacy campaign began in 1979. They answered 16 open-ended questions concerning their motivation, achievement, learning experiences, and future goals. Some differences between rural and city women were noted in the responses. All were motivated and had positive self-concepts. All expected to continue learning, but the urban group had higher ambition with grade 12 completion often expected. Literacy and numeracy learning tasks were extremely arduous for these subjects.

SCRIBNER, SYLVIA, & COLE, MICHAEL. *The Psychology of Literacy.* Cambridge, Mass.: Harvard University Press, 1981.

Documents an extensive/intensive study of literacy and its effects among the Vai, a rural African people living in a small area bordering Sierra Leone and Liberia. The Vai have a written script transmitted outside of an institutional setting. The research focused on analyzing psycholinguistic and cognitive skills as they are affected by literacy. Various quantitative and qualitative methodologies were employed in collecting data over a five-year period and included surveys, clinical interviews, linguistic analyses, psychological experiments, and ethnographic procedures. Three scripts were investigated: Vai, Arabic, and English. Comparisons were made between and among nonliterate men, Arabic literates, Vai script literates, and English schooled men. Each script had its own central functions, teaching methods, and social contexts. English, for example, is taught in an organized school setting whereas Vai is taught in home and everyday settings. Differences were found among groups in certain instructional tasks, with practice in a particular script often associated with a specific skill.

III-11 Reading in nonschool settings

MOORE, NANCY K.; SHAFFER, MARGARET T.; & SEIFERT, RITA FURST. Basic skill requirements for selected army occupational training courses. *Contemporary Educational Psychology*, January 1985, *10*, 83-92.

Investigates basic cognitive skills soldiers need for successful completion of Army entry-level training. Judgments of 126 instructors from 25 military occupational specialties from eight Army training schools were obtained on 129 candidate skills, 55 being identified as basic skills. Factor analyses of these 55 items resulted in 11 factors. Mean scores on the factors were compared across factors and across Army training schools. Reading, reading for detail, and study skills were deemed to be critical for students at all schools. In seven of the schools, listening, asking questions, and speaking were judged as difficult but important for students. Other skills related to the learning process, such as the ability to concentrate on the task at hand, are equally important.

JUNGE, DENIS A.; DANIELS, M. HARRY; & KARMOS, JOSEPH S. Personnel managers' perceptions of requisite basic skills. *The Vocational Guidance Quarterly*, December 1984, *33*, 138-146.

Determines the perceptions of 51 business and industry personnel managers regarding important specific skills for successful employment and the actual skills of entry-level employees with secondary education. The Basic Skills Questionnaire developed for this study consisted of 30 items divided into six skill categories: mathematics, writing, reading, speaking and listening, reasoning, scientific knowledge. One set of items represented the perceived degree of importance for success with the second set representing the perceived competence of entry-level employees in each skill area. Means for each set were calculated; values showing discrepancies between the two were significant at the .0001 level. Competence was always below the level of skills needed. The personnel managers rated highest the listening skill for following directions. All skills were rated as important. The most notable deficiencies were the writing skills. In reading the largest perceived deficit was comprehension of main ideas.

BERNIER, CHARLES L., & YERKEY, A. NEIL. *Cogent Communication: Overcoming Reading Overload.* Westport, Connecticut: Greenwood Press, Inc., 1979.

Documents the existence of reading overload in such diverse areas as medicine, education, energy, management, and psychology, among others. In addition to reading overload, other problems and projects in information science are discussed and include: lack of cogency, functional obsolescence, popularization, drowning in irrelevant paper, lack of knowledge of who knows what, translation from other languages, adequate computer use, videotape services, microform services, and knowledge of the central nervous system. Although awareness of the problem can be found as far back as 1945, little has been done to solve it. Problems of overload in the biomedical field are particularly severe and the authors estimate that a reader reading two technical papers daily in that field every day would spend

55 centuries in reading just the 1978 output. The five major ways in which information overload has been approached are: 1) specialization, 2) condensed surrogation, 3) indexing, 4) skipping, and 5) refusal to believe that the problem exists. None of these approaches has solved the problem. A proposed solution to information overload is suggested in the form of highly condensed literatures called Terse Literatures, Complex Terse Literatures, and Ultraterse Literatures. Computer assistance would be used to provide selective dissimination of Terse Literatures.

III-12 History of newspapers

MARZOLF, MARION T. American 'New Journalism' takes root in Europe at end of 19th century. *Journalism Quarterly,* Autumn 1984, *61*, 529-536, 691.

Shows the influence of and the attitudes toward the new American journalism on and by the European press between 1880 and 1890. In contrast with European reporting and publishing, the American style made use of big headlines, showy illustrations, and lively writing which attracted large circulations, advertising, and profits. By the end of the century this type of journalism was found in European capitals but not without criticism and resistance. European journalists were frequently astonished at the multitude of American newspapers and readers. The American newspapers were considered to be close to the common man but often criticized for their lack of elegance of style and lack of conservatism. After 1890 the big growth in both European and American newspapers was in the direction of the general-interest press and the illustrated tabloid. The use of the front page as a news display showcase was not common in European dailies until the start of World War II.

PASADEOS, YORGO. The Greek-American press: A 90-year video. *Journalism Quarterly,* Spring 1985, *62*, 140-144.

Presents a general picture of nine decades of the Greek-American press and examines content characteristics. The first Greek-American newspaper was *Neos Kosmos* (New World), which started in Boston in 1892 but lasted only a few months. The second paper, *Atlantis*, first appeared in New York in 1894 and later became a Greek-language daily. In 1920, 41 Greek-American publications were in circulation; by the 1970s the number had fallen to 30. Of the 26 publications circulating in 1982, 16 were started after 1950. Coverage in these ethnic papers appears to be well-balanced between news from and about Greece and Cyprus and news of Greek-American affairs, with some of the papers including international, national, and general news. These papers provide their readers with practical information and accounts of activities of the Greek Orthodox Archdiocese of the Americas.

CLOUD, BARBARA. Establishing the frontier newspaper: A study of eight Western territories. *Journalism Quarterly,* Winter 1984, *61*, 805-811.

Compares counties in eight Western territories in 1880 with newspapers and those without them. The U.S. Census for that year provided for demographic and financial data. The basic measurement used was the frequency of the occurrence, expressed in actual values and/or in percentages. The average was 2.5 newspapers for the 78 counties having newspapers, the great majority being weekly ones. The factors studied for the 165 counties included demographics (population or prospective population), stability (number of women and number of farms operated by owners), income and education, agriculture, manufacturing, economic-political status. The results of the comparison show a distinct difference in average populations, growth of the counties, levels of manufacturing and amount of taxes paid. The two types of counties were similar in farmer ownership, overall literacy and education, and average values of farms and crops. When counties with "old" (newspapers more than two years old) and "new" (newspapers less than two years old) were compared, the counties with old papers had a population double that of those with new papers and were more prosperous in terms of manufacturing, farm value, and overall wealth.

WILKE, JÜRGEN. The changing world of media reality. *Gazette*, 1984, *34*(3), 175-190.

Describes changes in news reporting, news values, and media reality in a longitudinal case study of two Hamburg, Germany, newspapers, one published between 1618 and 1678 and the other, 1731 to 1934. The volume of news reporting increased considerably while the intervals between the publication of issues became shorter from a weekly publication in 1622 to a twice daily publication in 1906. A content analysis revealed increasing diversification of news but not a radical thematic rearrangement of focal points. Notable news reporting became evident in the second half of the nineteenth century. International news exceeded national news until a more balanced relationship was established in more recent times. News reporting from outside Europe became important during the nineteenth century. It was concluded that the diversification in news reporting was accompanied by a decreasing continuity in connecting news. Prominence was more consistent about nations than about people.

EDOGA-UGWUOJU, DYMPNA. Ownership patterns of Nigerian newspapers. *Gazette*, 1984, *33*(3), 193-201.

Reports on the history and status of individual media ownership and political-party ownership of Nigerian newspapers. The history of Nigeria's press began with the short-lived *Anglo-African* in 1863, but the real emergence of indigenous media began 15 years later when conditions favored the emergence of popular newspapers. Until 1926 the press was almost exclusively owned by private capital and was adversely critical of the government. After Nigerian independence, the government assumed a larger degree of ownership and control of most media organizations. Independent newspapers are so aligned with government media that there is now little difference in editorial coverage and slant of either newspaper organization. Ownership has affected the quality of news carried by the press with the government expecting all of its news to be covered; the remainder of the news is neglected.

III-13 Newspaper and magazine publication

LACY, STEPHEN. Competition among metropolitan daily, small daily and weekly newspapers. *Journalism Quarterly*, Autumn 1984, *61*, 640-644, 742.

Surveys newspaper executives in 13 large metropolitan areas in six southern states to determine the extent of competition among four layers of newspapers. In the model used, the first layer consisted of metropolitan dailies providing regional coverage; the second, satellite city newspapers providing more local news than the first; the third, suburban dailies; the fourth, weekly newspapers and shoppers. The second and third layers were combined. Questionnaires were completed by 36 metro executives, 29 small daily publishers, and 56 weekly publishers. They are asked questions about advertising, circulation, past and future levels of competition, effects of competition on survival of newspapers, and demographic conditions. Competition between metropolitan and smaller newspapers was found to be more intense downward and more threatening to smaller newspapers. Most editors predicted more competition.

UTT, SANDRA H., & PASTERNACK, STEVE. Front pages of U.S. daily newspapers. *Journalism Quarterly,* Winter 1984, *61*, 879-884.

Questions 78 editors of American newspapers with circulations over 25,000 about front-page newspaper design and graphics and their satisfaction with the appearance of newspapers. Most newspapers (65.7%) have adopted a modular front, and most (85.5%) use a 6-column front page, with widths varying. The mean number of front-page stories is 5.74 reflecting a range of 3 to 10 stories. The body type is almost universally 9 point (77.9%) and serif (90.3%). As more newspapers use the modular style, the tradition of placing the largest page one headline in the upper right hand corner appears to be fading. Most front pages (66.7%) have two photographs though the range may be none to four. Newspapers are increasingly turning to color. Most editors (80.7%) are satisfied with the front page appearance of their own papers, but only 53.2% agreed that the front pages of American dailies are generally attractive.

HYNDS, ERNEST C. Editorial, opinion pages still have vital roles at most newspapers. *Journalism Quarterly,* Autumn 1984, *61*, 634-639.

Determines changes in editorial pages and replicates a 1975 survey. The responses to a four-page questionnaire completed by 186 editors were divided into circulation categories. Almost all daily newspapers devote at least one page each day to editorials and related features, such as cartoons, columns, and letters to the editor. Almost all agreed that the editorial page provides a forum for information and thought that it should provide community leadership through stands on issues. Most thought that editorial page readership was greater than in the 1970s. Most rely on syndicates for their columns, are receiving and using more letters to the editors, have expanded their editorial space, and were positive than negative in their comments. Other findings and comparisons are included in the report.

TILLINGHAST, WILLIAM A. Slanting the news: Source perceptions after changes in newspaper management. *Journalism Quarterly,* Summer 1984, *61*, 310-316, 418.

Investigates readers' and reporters' perceptions of bias in two California community newspapers before and after they changed from family-owned to chain-owned institutions. The 241 readers and 33 journalists answered a two-part questionnaire concerning article accuracy and bias before and after management change on 10 information areas. Both groups of subjects perceived that the premerger papers were quite biased in coverage of nearly all of the 10 issues, that bias diminished significantly in postmerger papers, and that political ideology shaped source perceptions.

SCHNEIDER, JAMES G. What is paper's responsibility for error in supplement. *Journalism Quarterly,* Winter 1984, *61*, 905-907.

Attempts to have *Family Weekly* and/or the 364 distributing newspapers correct an erroneous statement. After the newspaper supplement failed to correct an error considered serious, the investigators wrote a letter to the editor calling attention to the error and asked that a copy of the printed letter be sent to him in an enclosed self-addressed, stamped envelope. By three months later it appeared to have been published in 51 papers, a 14% return.

KARIEL, HERBERT G., & ROSENVALL, LYNN A. Factors influencing international news flow. *Journalism Quarterly,* Autumn 1984, *61*, 509-516, 666.

Relates population size, trade, gross national product per capita, and eliteness of foreign countries, excluding the United States, to the amount of news published about them in 21 Canadian daily newspapers on a random sample of 31 publishing days. All datelines of all 31 issues of each paper were tabulated, the result being used as the dependent variable. Eliteness of the nations was determined by judgments of 34 Canadian and American geographers. Simple correlation-regression analyses were carried out between each of the independent variables and the dependent variable to determine the relation between them. All were found to be statistically significant. A multiple correlation analysis was then performed to determine the relative importance of each independent variable as well as the degree of relation when all were considered simultaneously. Eliteness contributed the most to the size of the multiple correlation coefficient. The proportion of the variance is small in the other three instances.

ROEH, ITZHAK, & FELDMAN, SAUL. The rhetoric of numbers in front-page journalism: How numbers contribute to the melodramatic in the popular press. *Text*, 1984, *4*(4), 347-368.

Compares the use of numbers in two Hebrew dailies, one a morning newspaper read by the elite and better educated and the other a popular afternoon paper with a readership about four times that of the first paper. The investigators studied the use of numbers in headings of front-page articles as stylistic and rhetorical devices and their contributions to the melodramatic in news. Popular press numbers are linked to patterns of presentation which appeal more to readers' emotions than reflect true-facts-of-reality. The prestigious paper employed numbers for their referential value in unmarked stylistic patterns.

BROWNLEE, BONNIE J. The Nicaraguan press: Revolutionary, developmental, or socially responsible? *Gazette*, 1984, *33*(3), 155-172.

Aims to put the historic and current Nicaraguan political and social situation in context with prevailing press concepts. Although press theories are difficult to apply in the real world, Nicaragua, as a nation in transition, appeared to be the logical locale in which to examine these concepts (authoritarian, communist, social responsibility, libertarian, western, revolutionary, developmental). The Nicaraguan press was molded by the authoritarian nature of the government and the historical, social, and cultural hierarchy of the country. Press laws and their interpretation have evolved as situations within the country changed. The press and the electronic media in Nicaragua are not free. It was concluded that needed were more analyses of factors that formed that society and the press of that society: factors of history, economy, culture, language, geography, and religion.

POLLAY, RICHARD W. Twentieth-century magazine advertising. *Written Communication*, January 1984, *1*, 56-77.

Reports results of the quantity, character, and variability of information contained in advertisements spanning the twentieth century. Data were recorded along 16 dimensions for 2,000 magazine ads, 250 from each of the first eight decades of the century, from the 10 largest circulation magazines for each decade. The results showed that the level of information richness varied significantly with decade, page size, product class, format, and rhetorical style. Advertising in the early part of the century was richer in its information than in later years. By the 1920s and 1930s, the effort to communicate a great deal of information was manifested in complex formats, but during the war years the informativeness of advertising dropped. Since World War II the advertisements have been less informative.

III-14 History of book publication

BONN, THOMAS L. *Under Cover: An Illustrated History of American Mass Market Paperbacks*. New York: Penguin Books, 1982.

Traces the historical origins and development of the American paperback publishing industry from its beginnings in the nineteenth century through today with particular emphasis on the cover art and design. The early years of contemporary paperback publishing in the United States, 1939-1956, are given particular attention. Beginning in 1841, softcover editions of British and American authors were distributed across Europe through the Tauchnitz English-language Continental editions and later by Albatross Books (1931) and Penguin (1935). In 1841, two U.S. literary magazines published book supplements in inexpensive form until increased mailing rates brought about the demise of such publications by the mid-1840s. Following this, the dime novel was introduced just prior to the outbreak of the Civil War. These books generally were limited to short, sensational fiction, and a number of publishers soon entered the field of cheap novels. One-third of the 4,500 titles published in 1885 were paperbound, with some selling for as little as five cents. The poor physical quality of the product, combined with the availability of inexpensive, cloth-covered books led to a recession of the paperback tide. In 1939, Pocket Books entered the paperback book market with 10 titles published to sell at twenty-five cents each. About 10,000 copies of each title were printed and sold out within a week. Shortly thereafter other publishers began issuing paperbacks; the end of World War II marked a time of great expansion in the industry. The dominant style of cover illustrations in the late 1940s and early 1950s was one described as brooding realism to which a veneer of sex and sadism was imposed. Such covers led to attacks by official and unofficial censoring agencies. At first considered lower-class, paperbacks soon shed that image and began to acquire bestselling novels and to commission original works. In 1939, three million paperbacks were sold; figures for 1979 were estimated at 535 million.

Crider, Allen Bills (Ed.). *Mass Market Publishing in America.* Boston, Mass.: G.K. Hall & Co., 1982.

Presents a history of the first 40 years of paperback publishing (1939-1979) in the United States. All major and many minor publishers are included, in alphabetical order, with a chapter devoted to each.

Finnbogason, Eirikur Hreinn. The Icelanders and their books. *Scandinavian Public Library Quarterly,* 1983, *16*(4), 106-109.

Describes the Icelanders' relationship to books throughout the ages. Scandinavian settlers took a strong literary tradition to this new country. Various books were written in Iceland during the 12th and 13th centuries. As early as the 13th century some wealthy farmers owned books. The first five centuries in the history of Icelandic books comprise the age of vellum manuscripts. Much copying of texts was done then. Religious texts were translated into Icelandic during the Reformation and contributed to widespread literacy. When paper came to Iceland in the 16th century, it became easier and cheaper to acquire books. Towards the end of the 18th century the printing of secular literature began. Reading aloud, especially the sagas, was a common practice between the 13th and 19th centuries. In Iceland today books are still highly respected, the reading materials being extremely varied.

Hallewell, L. *Books In Brazil a history of the publishing trade.* Metuchen, N.J. & London: The Scarecrow Press, Inc., 1982.

Presents a historical treatment of publishing in Brazil. The first two books known to have been produced in what is present-day Brazil were from a Spanish missionary press and appeared in 1722 and 1724. The first attempts to bring printing into Brazil were made by the Dutch in the 1640s, but the printer died almost immediately upon his arrival in the colony, and it is not known what happened to the press. There is proof for the existence of a press in Rio de Janeiro in 1747. However, the press was shut down by Portugal with the insistence that all printing be done in the mother country. In the 1790s, a British diplomat recorded only two bookstores in Rio, although there were 216 taverns, 17 eating houses, and 18 tobacconists. At the beginning of the nineteenth century, still only two bookstores existed in Rio and no printing firms. However, by 1890, there were 45 bookstores and 67 printing firms. In recent years, Brazil's has become the most active publishing industry in South America and is on the way to becoming the premier book industry in the Third World.

Pedersen, Johannes. *The Arabic Book.* Translated by Geoffrey French. Princeton, N.J.: Princeton University Press, 1984.

Bears on book production in medieval Islamic society. Although written records were known prior to the pre-Islamic period, the Arabic book owes its origins to Islam. The mosque was the starting point and center of literary activity in Islamic lands. Many scholars were prolific authors, with one author reported to have 600 books to his credit. Copyists became the bookmen of the period. When printing came into use in Europe, Muslim culture had passed its zenith, and there was little interest evidenced in having books printed. Nevertheless, a number of Islamic books were printed in Italy. However, a ban on the possession of printed matter was proclaimed by the Sultan in 1485, and little printing was done until the early 1700s. Even into the 20th century, the aversion to printing had not completely disappeared.

III-15 Book publication

Arthur Anderson & Co. *Book Distribution in the United States: Issues and Perceptions.* New York: Book Industry Study Group, 1982.

Explores distribution issues, practices, and trends in the U.S. book industry. The purpose of the study was to identify and assess problems and opportunities for change in the distribution process of traditional books and mass market paperbacks. Data were collected by means of questionnaires sent to various segments of the book industry: publishers, wholesalers and jobbers, independent distributors of mass market paperbacks, booksellers, librarians, and manufacturers (printers and binders). Survey findings were group into the following four areas: 1) trends and opportunities for improvement; 2) ordering, order processing, and reordering; 3) physical movement of books, and 4) inventory control and returns. The panels of experts from the various segments felt that in 1985 between 30-40% of new paperback titles will have no hardcover editions; by 1990, that will increase to 40-60%. Telecommunications technology was felt to have high potential benefits for the industry. It was felt that there will be some impact of electronic delivery of books by 1990. Many suggested improvements in physical distribution involved either significant capital investment or changes in business practices.

Altbach, Philip G.; Arboleda, Amadio A.; & Gopinathan, S. (Eds.) *Publishing in the Third World: Knowledge and Development.* Portsmouth, New Hampshire: Heinemann, 1985.

Presents a study of publishing in Third World nations with chapters on countries in Latin America, Africa, Asia, and the Middle East. The multifaceted problems and issues involved in Third World publishing are discussed. While many differences exist among these nations, some common themes and problems emerge. Among the common themes addressed are textbooks, copyright, and distribution.

III-16 Censorship and freedom of the press

KLINE, MARJORY R. Social influences in textbook publishing. *Educational Forum*, Winter 1984, *48*, 223-234.

Examines social pressures upon textbook publishers which influence them to serve as their own censors in the selection of text material. Selected examples of the impact of special groups on the content of textbooks from different historical times were included. Today objections to textbook content at the community level tend to come from individuals, usually parents; but at the state level the opposition was largely organized and structured. Much of the controversy is between those who wish to keep a traditional approach and those who want to pursue a broader course. A recurring theme of the protests is that schools are meant to teach skills, not to effect change.

PINCUS, FRED L. Book banning and the new right: Censorship in the public schools. *Educational Forum*, Fall 1984, *49*, 7-21.

Traces different attempts since the 1960s to challenge books found and/or used in schools. Attacks were begun on different liberal education issues found in books by two new right "book analysts" in Texas in 1961. Local censorship was first directed to high school materials but lately was changed to elementary and junior high school books. Although the most important reasons for objecting to school books was obscenity, bad language, and sexuality, other issues have been attacked. Anecdotal and empirical evidence show that right wing campaigns have had important effects on teachers, librarians, and publishers. Some liberal educators and writers have caused a split in the anti-right coalition by equating attempts to improve the image of women and minorities with the right's attempt to ban books. Problems with the liberal response to censorship were discussed, and recommendations for combating the new right's criticisms were made.

FITZGIBBONS, SHIRLEY; ALLEN, JUDITH; BROWN, RACHEL; & HOWARD, CATHERINE. Selection and censorship in Indiana school libraries: Summary report on the intellectual freedom survey. *Indiana Media Journal*, Winter 1983, *6*(2), 24-32.

Surveys Indiana schools concerning book selection policies and procedures, and numbers and types of challenges to materials. A mail questionnaire developed by the Intellectual Freedom Committee of the Association for Indiana Media Educators was completed by 337 members of the Association. A high percentage (77%) reported having board-adopted selection policies. Almost one half (47%) had had challenges. Materials in the library accounted for 83% of the challenges. Parents (67%) were the greatest single source of the challenges. Fiction (69%) was the most challenged type of material. Sixty percent objected to either sexuality or use of language or both. The outcomes of the most recent challenges indicated that 39% of the materials remained in use. Sixty percent of the respondents feel greater pressures today than before in their selection of materials. A list of the specific materials challenged is included with the report.

STUART, CHARLES. Law that led to free press passed just 500 years ago. *Journalism Quarterly*, Autumn 1984, *61*, 689-691.

Reports that in 1484 a law was passed in England which led to the establishment of Fleet Street as a world center of the free press which became a springboard for the two major contemporary views of freedom of the press. One translation of the law suggested that 1484 was the first year in which national legislation formulated largely by Richard III incorporated the principle of press freedom in the English-speaking world. Although William Caxton is credited with introducing printing in England, it was foreign printers who did most of the work in firmly establishing the medium there. After Caxton's death, his press was moved to Fleet Street where notable foreign printers had already established their presses.

III-17 Effects of reading

Castagna, Edwin. *Caught in the Act: The Decisive Reading of Some Notable Men and Women and Its Influence on Their Actions and Attitudes.* Metuchen, N.J. & London: The Scarecrow Press, 1982.

Identifies influential individuals in various areas and attempts to focus on the reading that influenced them. The areas covered with representative individuals from each include the following: Authors (Dante, Chaucer, Shakespeare, Whitman, Tolstoy); Religious leaders (Saint Augustine, John Calvin, Mary Baker Eddy, Martin Luther King); Scientists (Darwin, Pasteur); Medical practitioners and scientists (William Harvey, Edward Jenner, Joseph Lister); Military leaders (Alexander, Caesar, Napoleon, Robert E. Lee, Douglas MacArthur). A chapter on the decisive reading of Freud and Jung is also included. Data are collected primarily from autobiographies and biographies. Decisive reading is that reading which changed or markedly influenced an individual. Among the author's overall conclusions are that: 1) most decisive reading occurred during adult years, 2) most of these individuals had a good education, 3) most were lifelong readers who read widely, and 4) most of the decisive reading was purposeful, but some chance reading led to extraordinary consequences.

Latimer, Margaret K., & Cotter, Patrick R. Effects of news measure on selection of state government news sources. *Journalism Quarterly,* Spring 1985, *62,* 31-36.

Questions what is the citizen's most useful source of information about state and local politics. From a sample of 2,207 Alabama residents interviewed by telephone, a random sample of 788 subjects was reinterviewed concerning sources of information used during a state election. Both newspapers and television were the sources most often named, the newspaper being more important at the local level. Those who voted most in state elections chose the newspaper at 73.9%. Television was used most by those not voting. At both state and local levels, increased newspaper use related significantly to higher voting turnout. The open versus the closed nature of questions was tested; the results led to the conclusion that the different focus of the question led to different results.

Hurd, Robert E., & Singletary, Michael W. Newspaper endorsement influence on the 1980 presidential election vote. *Journalism Quarterly,* Summer 1984, *61,* 332-338.

Examines the effects of newspaper political endorsements on different groups of people, replicates an earlier study, and seeks characteristics of those whose votes did or did not match the endorsements of the papers they read. For this part of a larger study, 2,172 adults nationwide were interviewed before and after the 1980 election. They stated the names of the newspapers they read, if any, and their political leanings. Of those interviewed 1,005 reported voting and reading a newspaper. Their votes were compared with the endorsements of the newspapers read. Republicans were unswayed by editorial comments. Independents and Democrats reading Carter endorsements were 25% and 8% more likely to vote for Carter than those reading Reagan endorsements. Of the 510 subjects reading a daily newspaper endorsing one of the three major candidates and voting for one of the three, 230 (or 45%) voted in harmony with the endorsements they read. The investigators were unable to identify characteristics which might predict the influence of newspaper endorsements on voting.

SOHN, ARDYTH BROADRICK. Newspaper agenda-setting and community expectations. *Journalism Quarterly,* Winter 1984, *61*, 892-897.

Tests the strength of a newspaper's agenda-setting for an obtrusive issue (one with which people have direct experience) in a nonpolitical content. Interviews were conducted with 150 residents of a community of 8,000 after an announcement that a new coal mine would be sunk there. They were asked if they expected changes because of the mining industry and if so, what changes. All local newspaper mine stories from the announcement day to the final day of interviewing were analyzed. The subjects' answers and the newspaper content were categorized under 15 headings and were compared. The newspaper analysis of 35 items resulted in the 15 categories being mentioned 84 times. The subjects stated 247 types of changes expected. They expected the same things that had been emphasized in the newspaper, nearly all changes being positive in both cases. Subject expectations by sex, education level, or work status were not significantly different.

CRISCUOLO, NICHOLAS P. Impact of the press on parents' views toward education. *Contemporary Education,* Summer 1984, *55*, 222-223.

Interviews 30 parents of elementary school pupils about the effect of the press on shaping their attitudes toward public education. Interviews were conducted in three schools representing different income levels of parents. They were asked about their newspaper reading, their opinions about newspaper coverage of education, educational issues considered the most important, and improvements they would make about educational coverage. The parents were generally satisfied with education coverage although they desired more news about each school's activities. They reported being influenced by the press and being interested in educational news.

GAZIANO, CECELIE. Neighborhood newspapers, citizen groups and public affairs knowledge gaps. *Journalism Quarterly,* Autumn 1984, *61*, 556-566, 599.

Investigates the magnitude of knowledge gaps concerning four public affairs issues among residents in a Midwestern inner city under varying levels of neighborhood newspaper publicity and organized urban group activities. Telephone interviews were conducted with 239 residents in 1980. To gain information about the level of organized group activities, 52 representatives of organizations with ties to the four issues were interviewed. The extent of the subjects' knowledge of each of the four topics was gained through open-ended questions resulting in two scores: awareness knowledge, depth knowledge. The dependent variable was the magnitude of knowledge gap; the two independent variables were the level of organized group activity as measured by the two groups interviewed and the level of neighborhood newspaper attention to the issues. The content of these newspapers was analyzed for a 3½-month period prior to the interviews. High levels of organized group activity were related to higher knowledge levels and also related to larger knowledge gaps for both awareness and depth knowledge. Interest group activities stimulated the flow of information, but the more educated subjects were more likely to be knowledgeable about the issues than the less educated.

BAUM, DALE D. The effect of source on reader perception of handicapping conditions. *Exceptional Children,* January 1985, *51*, 341-342.

Attempts to determine the residual effects of the publication source of a journal article which was reissued as part of a professional collection. Subjects were 102 teacher education undergraduates, 91 graduate students in a Special Education Program, and 93 students enrolled in Freshman Engineering. The source of a three-page article was randomly credited to one of three citations: *Journal of Learning Disabilities*, *Journal of Psychiatric and Nervous Disorders*, and *Reader's Digest*. Subjects were asked to 1) read the article, 2) rate the problem discussed on a semantic differential task, 3) classify the problem, and 4) select a placement for the child being discussed. Undergraduate education students viewed the child's problem as more serious than did the other two groups. No significant differences were noted for the classification or the placement tasks as a function of literacy source.

III-18 Research techniques

HASKINS, JACK B.; MILLER, M. MARK; & QUARLES, JAN. Reliability of the news direction scale for analysis of good-bad news dimension. *Journalism Quarterly*, Autumn 1984, *61*, 524-528.

Develops and determines intracoder and intercoder reliability of a seven-step News Direction Scale to use for content analysis along the good news-bad news dimension. Eighteen coders, diversified by sex, education, and age classified 25 news headlines on the scale on two separate occasions. Pearson's correlation coefficient was used among all pairs of codes, and Cronbaugh's coefficient alpha indicated the overall agreement among all coders. The scale tended to produce the same results when the same coders classified items on two occasions. Coders with a wide range of demographic characteristics agreed highly among themselves in the classification of news along the good-bad dimension. It was concluded that the scale was a reliable instrument for the purpose for which it was created.

SINGLETARY, MICHAEL W. Reliability of immediate reward and delayed reward categories. *Journalism Quarterly*, Spring 1985, *62*, 116-120.

Tests the reliability of differential rewards as a scheme for content analysis. Eighteen pairs of coders examined a total of 732 front-page stories of seven metropolitan newspapers; another set examined 58 stories. Subcategories were developed for each major category (immediate rewards, delayed rewards). The coders were able to judge adequately stories offering the two major types of rewards but not the subcategories within. The subcategories with the highest percentage of reliability were disaster/accident, human interest, nonviolent crime, and national/international news. The coding scheme was considered sufficient for gross distinctions but not fine ones.

ZINKHAN, GEORGE, & BLAIR, EDWARD. An assessment of the cloze procedure as an advertising copy test. *Journalism Quarterly*, Summer 1984, *61*, 404-408.

Uses the cloze procedure in a series of experiments to determine its reliability and validity when applied to advertising copy. Six applications of the cloze were made to determine reliability each to a different advertised product, using between 78 and 148 subjects. Reliability was measured by the Kuder-Richardson Formula 20, resulting in estimates ranging from .56 to .72, with a mean of .65. To determine validity, 155 subjects responded to questionnaires about two advertisements in three sessions. They first completed the cloze procedure for each ad. One week later they read the complete ads; two days later they wrote all they could remember about each. The latter was scored by the number of correct facts recalled. Relationships between the results of the cloze and the recall tests were determined resulting in a statistically significant relationship. It was concluded that when applied to advertising copy the reliability of the cloze was not as high as desired but that evidence for predictive validity was found.

IV. *Physiology and psychology of reading*

IV-1 Physiology of reading

BERNINGER, VIRGINIA WISE, & COLWELL, SARAH O. Relationships between neurodevelopmental and educational findings in children aged 6 to 12 years. *Pediatrics*, April 1985, *75*, 697-702.

Undertakes a study to determine whether specific neurodevelopmental findings in the diagnosis of school learning problems are reliably related to specific educational findings. A total of 241 children, ages 6 to 12, were evaluated. Ratings of children as no problem, possible problem, or definite problem were compared between seven neurodevelopmental areas or three language functions and seven academic skills. Sex ratio was four boys to each girl in the referred sample, and one-fifth had repeated a grade. Neither all language abilities nor all component reading skills were developed to the same level in a given child, with about one-third of the sample rated differently on word recognition than on reading comprehension. Of the 40 associations tested, only that between the *Boston Naming Test* and reading comprehension was significant in a majority of the age levels tested. The authors note that their findings do not support the use of neurodevelopmental and educational measures employed in diagnosis of specific learning disabilities in the referred population.

STALLER, JOSHUA. Neurological correlates of reading failure. In Martin H. Singer (Ed.) *Competent Reader, Disabled Reader: Research and Application*. Hillsdale, NJ: Lawrence Erlbaum Associates, 1982, 103-116.

Reviews selected research on the relation between neurological impairment and reading disability. Acquired reading disability is examined in the areas of alexia without agraphia, alexia with agraphia, and frontal alexia. Parallels are drawn between alexics and dyslexics in terms of behavioral similarities. It is noted that it is not yet possible to relate dyslexic behavior to specific neurological correlates.

BROWN, BRIAN; HAEGERSTROM-PORTNOY, GUNILLA; YINGLING, CHARLES D.; HERRON, JEANNINE; GALIN, DAVID; & MARCUS, MARILYN. Dyslexic children have normal vestibular responses to rotation. *Archives of Neurology*, June 1983, *40*, 370-373.

Assesses and compares vestibular function in a sample of 34 dyslexic and 33 control boys, ages 10 to 12. All subjects had WISC-R Full-Scale IQ above 88, and a difference of less than 30 points between verbal and performance scores. Eye movements provoked by sinusoidal rotation of subjects at low frequencies were measured. Gain, phase, and preponderance (asymmetry) of responses were computed from the eye velocity and stimulus velocity waveforms. No differences were found between the two groups.

SHUCARD, DAVID WILLIAM; CUMMINS, KATHERINE R.; & MCGEE, MARK G. Event-related brain potentials differentiate normal and disabled readers. *Brain and Language*, March 1984, *21*, 318-334.

Studies differences in patterns of hemispheric auditory event-related potentials (AERPs) amplitude asymmetries between normal and disabled readers. Subjects were 141 reading disabled and 141 control children, ages 7-11 to 16-11, and matched on age, sex, handedness, and school district. All children had scores of 90 or above on either Verbal or Performance subscales of the WISC. For the study a subgroup of 30 right-handed male disabled readers and an age matched sample of 30 right-handed male normal readers were selected. AERPs were obtained during two visual task conditions: Letter Sounds and Letter

Shapes. Pairs of task-irrelevant auditory tones were presented at intervals while subjects were performing the visual task and electrodes recorded AERPs. AERPs differed significantly between the two groups. Disabled readers showed lower amplitude right hemisphere AERP responses during tasks involving visual-phonemic transfer of information and simple pattern recognition. Disabled readers also showed higher amplitude left hemisphere responses during the visual-phonemic task.

GALABURDA, ALBERT. Developmental dyslexia: Current anatomical research. In Elinor Linn Hartwig (Ed.) *Annals of Dyslexia*, Vol. 33. Baltimore, MD: The Orton Dyslexia Society, 1983, 41-53.

Summarizes recent anatomical research relating to asymmetries in the brain and reviews selected case studies of dyslexics with brain asymmetry. Concludes by stating that anomalous lateralization and brain asymmetry may be a characteristic of the dyslexic brain. States that both subtle and more obvious distortions of cortical architecture have been demonstrated in the left hemisphere of the dyslexic brain, and that this type of distortion probably dates back to the period of neuronal migration occurring somewhere between the 16th and 24th week of gestation.

BESNER, DEREK. Deep dyslexia and the right hemisphere hypothesis: Evidence from the U.S.A. and the U.S.S.R. *Canadian Journal of Psychology*, December 1983, *37*, 565-571.

Reviews data from previously published reports in an effort to examine the residual reading abilities found in deep or phonemic dyslexia, a type of acquired dyslexia resulting from left-hemisphere damage. In particular, the hypothesis that deep dyslexia reflects the operation of an intact right hemisphere system rather than a partially disabled left hemisphere reading system is scrutinized. The first study reviewed dealt with normal subjects and indicated that the right hemisphere contained no lexical entries for abbreviations that could be accessed by visual presentation. The second part of the article presents information reported on three deep dyslexics which indicated that they had considerable sparing of the ability to obtain semantic information from printed abbreviations. The author contends that the right hemisphere account of residual reading abilities in deep dyslexia is, therefore, not sufficient.

ELLIS, ANDREW W., & MILLER, DIANE. Left and wrong in adverts: Neuropsychological correlates of aesthetic preference. *British Journal of Psychology*, May 1981, *72*, 225-229.

Utilizes right- and left-handed subjects' preferences for the left-right juxtaposition of words and pictures in advertising as a means of determining if the traditional differences found between right- and left-handers are due to hemispheric explanations or to the pure convention of learning to read or examine a picture from left to right. Subjects were 40 British university students, 20 left-handed and 20 right-handed. Subjects were given advertisements in which the pictures and words had been separated and were asked to arrange them in a way they found most pleasing. The right-handers preferred the picture to the left of the text, and the left-handers demonstrated no significant preference. The authors conclude that the results indicate an effect of hemispheric specialization on aesthetic preference.

HEYDORN, BERNARD L. Symbol reversals, reading achievement, and handedness of first grade students. *Perceptual and Motor Skills*, April 1984, *58*, 589-590.

Administers a symbol reversal and a reading test to 115 first graders and compares right-handed and left-handed children on the two scores. Handedness was determined by the hand with which a child wrote. Twelve left-handed and 103 right-handed children were identified. The *Jordan Left-Right Reversal Test*, Level 1, and the *Gates-MacGinitie Reading Tests*, Basic R, were administered. There were no significant differences in symbol reversal errors or reading scores by handedness.

GESCHWIND, NORMAN. Biological associations of left-handedness. In Elinor Linn Hartwig (Ed.) *Annals of Dyslexia*, Vol. 33. Baltimore, MD: The Orton Dyslexia Society, 1983, 29-40.

Summarizes selected questionnaire research that examines the relation between left-handedness, learning disabilities, and certain biological dysfunctions. Left-handers had nearly three-times as high a frequency of immune disorders as right-handers; left-handers had a higher frequency of dyslexia, stuttering and autism then right-handers; and left-handedness was about twice as frequent in a group of patients with migraine headaches as in the general population. Discusses a variety of hypotheses for these findings and issues several cautions about drawing false generalizations about left-handers.

CHASE, CHRISTOPHER H.; SCHMITT, R. LARRY; RUSSELL, GUY; & TALLAL, PAULA. A new chemotherapeutic investigation: Piracetam effects on dyslexia. In Rosemary F. Bowler (Ed.) *Annals of Dyslexia*, Vol. 34. Baltimore, MD: The Orton Dyslexia Society, 1984, 29-48.

Evaluates the effects of a new drug, Piracetam, on the learning of 55 dyslexic boys between the ages of 8 and 13. All subjects were selected on the basis of 12 criteria which are stated in the paper. In summary, the subjects had normal environmental, physical, educational, intellectual, and emotional backgrounds and were all reading at least one-and-a-half years below grade level. A large battery of educational and perceptual tests was administered before and at the end of the 12-week study. Subjects in this double blind study were assigned to the Piracetam or placebo group. The groups did not differ significantly on any of the pretests. On the posttests the groups did not differ in comprehension or accuracy on the *Gilmore Oral Reading Test*, but the Piracetam group had a significantly higher reading rate. The authors then calculated a composite score by multiplying the Gilmore comprehension and accuracy scores by the reading rate, and found that this transformation resulted in significantly higher scores for the Piracetam group. Of the other 24 comparisons on spelling, writing and perceptual tasks, the Piracetam group scored significantly better on only one test, percentage of spelling errors in the total number of words written; there was no significant difference on the other 23, including the *Gates-McKillop Diagnostic Reading Test*, syllabication and the *Wide Range Achievement Test*, spelling.

IV-2 Sex differences

SEWELL, JR., EDWARD H. Appreciation of cartoons with profanity in captions. *Psychological Reports*, April 1984, *54*, 583-587.

Studies sex differences in reaction to cartoons with three levels of profanity in the caption. Subjects were 111 female and 99 male undergraduates who were randomly assigned to a stimulus cartoon with a no-profanity, mild-profanity, or strong-profanity caption. For the no-profanity caption, there were no sex differences in evaluation of funniness. When the caption included either mild- or strong-profanity, men found the cartoon funnier than women.

WHYTE, JEAN, & HARLAND, ROSEMARY. Sex differences in visual encoding skills: Reading symbols. *Reading Psychology*, 1984, *5*(1-2), 31-38.

Compares the efficiency of a phonological, sound/symbol approach to a whole word/visual approach to reading instruction for male versus female readers. Twenty-four university undergraduates (male = 12; female = 12) were randomly assigned to two instructional conditions. Materials were 12 Arabic letters, representing 8 consonants and 4 vowels, each with a one-to-one phoneme-grapheme correspondence, and 8 Arabic transfer psuedowords, containing 4 letters. For letter learning, subjects listened to the set of 12 letter sounds, repeated them, and were trained to associate the appropriate graphic symbol. The number of trials to mastery or the number of errors made on the sixteenth trial served as the dependent measures. For the word group, subjects followed the same procedure but had to associate whole words with their sounds. Twenty-four trials were given for learning to compensate for the unequal amounts to be learned in the two conditions. All subjects were then tested on the ability to learn the transfer words. Results from a two-way ANOVA showed a significant interaction between sex and type of training in the number of trials to mastery of the transfer words. On the average, letter-trained females reached perfection in only 13 trials as opposed to 19.5 trials for word-trained females. Word-trained males took only 7.8 trials to reach perfection, whereas letter-trained males took an average of 20 trials. Based on number of trials to mastery, females were more successful when taught by the letter method, but males from both groups were equally successful.

Halpern, Diane F. The influence of sex-role stereotypes on prose recall. *Sex Roles*, February 1985, *12*, 363-375.

Attempts to determine the influence of sex-role stereotypes on memory. Ninety-eight female and 79 male high school students were asked to read a story describing two days in the life of a protagonist engaging in activities judged to be equally likely for males or females. For half the subjects in the study, the main character was named Linda; for the other half, the main character was named David. All subjects responded to a set of multiple-choice and true-false questions that included stereotypically male or female distractors. In addition, subjects were asked to rate the main character on a series of five-point bipolar dimensions. It was hypothesized that errors in memory for stated events would be biased toward conformity with sex-role stereotypes. Results indicated that when the sex of the protagonist was the same as their own, subjects answered significantly more questions about the story. A qualitative analysis of the kinds of errors and inferences made revealed that female subjects tended to rely on sex-role stereotypes when answering factual questions about a male protagonist, and male subjects tended to rely on sex-role stereotypes when answering a question about a female protagonist.

De Lisi, Richard, & Johns, Mary Lou. The effects of books and gender constancy on kindergarten children's sex-role attitudes. *Journal of Applied Developmental Psychology*, July/September 1984, *5*, 173-184.

Explores the effects of gender understanding on 118 kindergarten children's (boys = 62; girls = 56) sex-role understanding. Two groups of same-age children were identified who varied with respect to ability to make other-gender constancy judgments, as determined by an interview. Four kindergarten teachers, randomly assigned to treatment conditions, read aloud over a four-week period either 12 books considered traditiional in their treatment of sex-role behavior or 12 nontraditional books. Attitudes toward males and females were pre- and posttested with the *Sex Attitude Measure* (SAM), an instrument which yields a male-female positive or negative score when listeners identify the sex of the character in orally-read vignettes. Analyses of posttest attitude scores indicated treatment effects in the predicted directions. Traditional group subjects had more favorable attitudes toward males and less favorable attitudes toward females than nontraditional subjects. Children who heard and discussed nontraditional stories were somewhat negative in their attitudes toward males at the outset and became even more so, while children who heard traditional stories were also negative at the outset but became neutral in attitudes toward males. Conversely, nontraditional books led to an increase in positive attitudes toward females, while traditional books led to a decrease in attitudes toward women.

Kelly, Patricia R. The influence of reading content on students' perceptions of the masculinity or femininity of the reading activity. *California Reader,* March/April 1984, *17*(3), 11-13.

Studies the extent to which 154 individuals perceive reading as a masculine or feminine activity, and how that perception is influenced by the specific content of reading material. Subjects were 76 females and 78 males enrolled in grades 2, 4, 6, 8, and high school. All subjects were shown slides depicting children's activities, including 9 reading activities. Only the hands of the children were shown on the screen so as not to represent either sex engaged in reading. Subjects were directed to respond to each slide by circling "boy" or "girl" on their response sheets. Data indicated that reading is regarded as a feminine activity by both males and females; however, the specific content of the reading material affected responses. Males indicated that reading the funny paper, a TV Guide, and a science book were more masculine, while reading a poetry book and dictionary were viewed as more feminine. Females designated reading a science book, a TV Guide, an animal book, and the comics as more masculine, while reading a running book, the dictionary, and a poetry book were perceived to be more feminine. Both male and female subjects indicated that the reading of a mystery book was equally likely to be done by either boys or girls.

IV-3 Intellectual abilities and reading

Hogan, John D., & Whitson, George T. Perceptual decentering, multiple classification, and reading. *Journal of Genetic Psychology,* December 1984, *145,* 277-278.

Incorporates Piagetian decentering and multiple classification measures to note the overall contribution to the reading ability of 120 second graders. Reading measures administered included the *Wide Range Achievement Test,* and the *Gates-MacGinitie Reading Tests.* No significant correlation coefficients were found between decentering ability scores and reading scores. However, reading scores were significantly related to the classification ability score.

Althouse, Rosemary. The relationship between initial reading and performance on Piagetian tasks. *Reading Improvement,* Spring 1985, *22,* 21-28.

Determines the relation between eight Piagetian tasks and initial reading for kindergarten children. In September of the kindergarten year, 21 children were administered tasks of conservation, seriation, and class inclusion. The teacher then carried out a language experience program, and the Piagetian tasks were readministered when 50 to 53 sight words were known. Some children knew the 50 sight words by December; others, by the first week of May. A t test of the sum of the means for each of the criterion from the first and second administrations of the tasks was used to compare performance on the Piagetian tasks. Final data were available for 15 children who could read the 50 words. Conservation of Number, Conservation of Number and Space, and the Class Inclusion tasks all reached a statistical level of significance of .05 or higher.

Aaron, Robert. An investigation of the relationship between intelligence score and rate for word recall in a naturally occurring classroom setting. In George H. McNinch (Ed.) *Reading Research to Reading Practice.* Third Yearbook of The

American Reading Forum. Athens, GA: The American Reading Forum, 1983, 5-12.

Investigates the effects of time spent teaching and the number of words taught on the learning rate of children of differing intelligence. Teachers ($n = 14$) in grades one through three were trained to teach the vocabulary from their regular basal reading programs by a seven step procedure. The pupils ($n = 264$) were organized into reading groups on the basis of an informal reading inventory. The number of words taught and the number of repetitions for each session was varied according to achievement level. Written recalls served as a basis of evaluation of learning immediately after teaching (RECIM). Unknown words were retaught and retested (RECRET). Recall was also tested after two months (RECPOST). Pupils were administered the *California Short-Form Test of Mental Maturity* and divided into low (50-83), average (84-116), and high (117+) groups on the basis of the scores. RECIM was affected by the number of words taught, the number of lessons per week, and the times taught per week for the low and average groups (all $p < .001$), and by the number of lessons per week and the times taught per week for the high group ($p < .001$), RECRET scores were affected by daily time spent reteaching for the average group ($p < .001$) and the times per week that words were retaught for the average and high groups ($p < .03$). RECPOST scores were affected by the number of words taught for the low group ($p < .04$), and all variables other than the number of words taught for the average and high groups ($p < .03$). Specific results concerning the number of words taught and time spent teaching and reteaching are reported for each group.

ENO, LAWRENCE, & WOEHLKE, PAULA. Relationship between grammatical errors on Rotter's scale and performance on educational tests for students suspected of having learning problems. *Perceptual and Motor Skills*, February 1984, *58*, 75-78.

Scores the performance of 82 school-age subjects (mean age = 13.84 years) on the *Rotter Incomplete Sentences Blank:* High School Form for errors in grammar and correlates those scores with performance on measures of reading and spelling. Subjects had all been referred for psychological evaluations because of suspected learning problems. Tests administered included the WISC-R; Spelling and Reading subtests of the *Wide Range Achievement Test* (WRAT); subtests of Spelling, Reading recognition, and Reading comprehension on the *Peabody Individual Achievement Test* (PIAT). Correlation coefficients between Rotter errors and WRAT Reading ranged from -.242 (Rotter Capitals) to -.568 (Rotter Spelling). Similar results were obtained with the two PIAT reading scores. Factor analyses produced three factors: an academic skill factor comprised of WRAT and Peabody scores, a written grammar factor, and an intelligence factor.

BAKER, LAURA A.; DECKER, SADIE N.; & DEFRIES, J.C. Cognitive abilities in reading-disabled children: A longitudinal study. *Journal of Child Psychology and Psychiatry and Allied Disciplines*, January 1984, *25*, 111-117.

Reports longitudinal psychometric data collected on 69 reading-disabled children and their matched controls. Original data on subjects were collected in the first phase of the study when children were between 7.5 and 12 years old. In the second phase, five years later, all subjects not yet 17 years old were asked to participate. The following tests were administered: the Mathematics, Reading Recognition, Reading Comprehension, and Spelling subtests of the *Peabody Individual Achievement Test;* the Coding subtest of the WISC; the Rotatable Letters and Numbers of the *Colorado Perceptual Speed Test* (CPS); the Spatial Relations subtest of the *Primary Mental Abilities* (PMASR); and the WISC-R. Both groups showed significant growth between the first and second testing sessions, with disabled readers performing consistently below controls. However, the two groups differed more at the second testing than at the first phase on the CPS and WISC Coding scores. Thus, the reading performance of the two groups appeared to have developed at similar rates but reading-disabled children tended to show slower developmental growth as determined by measures of symbolic processing (CPS and Coding). These results held even when verbal and performance IQs were adjusted for.

BADIAN, NATHLIE A. Can the WPPSI be of aid in identifying young children at risk for reading disability. *Journal of Reading Disabilities,* December 1984, *17,* 583-587.

Inquires into the use of WPPSI subtest scores, IQs, or recategorized factor profiles as a means of identifying potential poor readers. A follow-up of an original group of 72 referred five-year-olds with WPPSI Full Scale IQs between 80 and 114 was done three years later. At follow-up time, children were divided into 32 poor readers and 40 good readers based on the Total Reading score on the *Stanford Achievement Test.* Groups did not differ in the amount or type of special help provided as a result of the original evaluation. Good readers were superior to poor readers on the Spatial factor, but not significantly so. Profiles were Conceptual > Spatial > Sequential for poor readers and Spatial > Sequential > Conceptual for good readers.

SCINTO, L.F.M. The development of text production. In Jonathan Fine & Roy O. Freedle (Eds.) *Developmental Issues in Discourse,* Vol. 10. Advances in Discourse Processes. Norwood, NJ: Ablex Publishing, 1983, 225-268.

Compares text production and writing production across ages, developmental levels, and reading ability. Subjects were English pupils from three age ranges: 8-9, 11-12, and 14-15. Due to attrition, complete data were available, from the original sample of 73, for only 20. Therefore, partial data were used from some of the original sample. Four tasks were administered: two writing production tasks, one expository and one narrative; a text construction task in which subjects arranged the individual sentences of story segments into a meaningful order; the *Wide Span Reading Test;* and the *Colored Blocks Test* (CBT), which was used to determine the subjects' cognitive stage as either concrete operational or low formal operational. Overall, neither age nor reading level differences showed consistent patterns of influence on text production or text construction. The major variation in performance on these two tasks was seen in the groups varying in level of cognitive functioning.

IV-4 Modes of learning

EHRI, LINNEA, C.; DEFFNER, NANCY D.; & WILCE, LEE S. Pictorial mnemonics for phonics. *Journal of Educational Psychology,* October 1984, *76,* 880-893.

Examines whether young children's letter-sound learning is aided by a picture mnemonic that integrates the shape of the relevant letter as a visual feature within a drawing of a target phoneme (e.g., the letter *w* forming part of a picture of a *wing*). Experiment 1 compared the effectiveness of the integrated picture mnemonic with a control condition in which letter shapes did not form part of the key drawing. Twenty low-achieving first graders were matched according to pretest scores on phoneme segmentation and letter-sound knowledge tests, and randomly assigned to either a control or experimental condition. Prior to letter-sound training, all children were taught how to segment the initial sounds of the picture names. Training for the experimental group consisted of being taught five letter-sound associations, each represented by an integrated letter shape-picture mnemonic. Children in the control condition were taught using disassociated target pictures. Posttest measures consisted of memory for the five letter sounds, identification of initial sounds given different pictures, letter writing, and target picture memory. Results indicated that children taught with integrated pictures recalled more letter-sound associations than when letters and pictures were disassociated. Subjects for Experiment 2 were 30 preschool and kindergarten children grouped on similarity of performance on the *Peabody Picture Vocabulary Test* and randomly assigned to one of three training groups: 1) integrated picture-letter condition; 2) identical target pictures without letter shapes as a prominent feature; and 3) a no-picture group. Subjects were taught five letter-sound associations for which pretest indicated need. Posttests for Experiment 2 were recall of letter-sound associations and letter shapes. Analysis of variance and Tukey's pair-wise comparisons indicated that the integrated picture group outperformed each of the other two groups ($p < .05$), which did not differ from one another.

BIEGER, GEORGE R., & GLOCK, MARVIN D. The information content of picture-text instructions. *Journal of Experimental Education*, Winter 1984/85, *53*, 68-76.

Develops a taxonomy of information depicted in picture-text instructions for two procedural assembly tasks and verifies the categories experimentally. The 108 undergraduate subjects each were given one of 36 sets of instructions for each of the two tasks. Assemblies were scored for accuracy and time. Of the 36 sets of instructions, 15 were complete and 21 were incomplete, i.e., missing one or more of the three categories of information assumed to be critical for the execution of the instructions. The three categories of essential information were operational, spatial, and contextual. On both assemblies, subjects receiving complete instructions finished in significantly less time and with significantly fewer errors than subjects with incomplete instructions.

GRINNELL, PAULA C. Reading comprehension and picture usage: A study with first-graders. In Jerome A. Niles & Larry A. Harris (Eds.) *New Inquiries in Reading Research and Instruction.* Thirty-first Yearbook of The National Reading Conference. Rochester: The National Reading Conference, 1982, 136-139.

Investigates the effects of illustrations upon the reading comprehension of first grade pupils. Subjects ($n = 45$) read aloud and retold one of three versions of a story. The story was from a basal reader and was presented with and without illustrations, and accompanied by contradictory illustrations from another story. Recalls were scored in terms of explicit idea units. Pupils reading text alone or text with normal pictures recalled more than subjects reading text with contradictory illustrations ($p < .05$). Two weeks after reading, the children were administered a picture usage instrument concerning predispositions toward the function and use of illustrations. Among other findings were that pictures were used 54% of the time for word recognition and 5% of the time for comprehension.

HAYES, DAVID A., & READENCE, JOHN E. Effects of cued attention to illustrations in text. In Jerome A. Niles & Larry A. Harris (Eds.) *New Inquiries in Reading Research and Instruction.* Thirty-first Yearbook of The National Reading Conference. Rochester: The National Reading Conference, 1982, 60-63.

Investigates the effect of illustrating text concerned with spatial relations on comprehension. Subjects ($n = 82$), who were eighth graders, read and did study exercises on four different texts under four different conditions. The texts were 300-word selections on the subject of simple machines, selected from a widely used science textbook. The texts were assembled so as to present four different sequences, with subjects randomly assigned to one of the sequences. A 10-item study exercise accompanied each text. Each subject worked through the texts, completing the exercises, under four conditions. The first condition presented the texts without illustrations. The second condition included line drawings, as did the third in which students were instructed to pay attention to the illustration. In the fourth condition no illustration was available, and subjects were instructed to imagine their own pictures to go along with the texts. There was a main effect for reading ability ($p < .001$, test not specified), but no interaction between reading level and treatment condition. Subjects performed better on the study exercises when illustrations were present than when they were not ($p < .001$). Instructions to attend to illustrations and to imagine pictures made no difference.

BECK, CHARLES R. Successive and simultaneous picture and passage formats: Visual, tactual, and topical effects. *Educational Communication and Technology Journal*, Fall 1983, *31*, 145-152.

Compares the effectiveness of successive and simultaneous formats and topic interest on comprehension. The 180 fifth-grade subjects were randomly assigned to six groups: three methods and two topics. Two topics were identified, one termed higher interest, and one termed lower interest. Each topic had a booklet, stationary board, and manipulative board (three methods) with an identical set of 12 pictures and passages. The booklets were designated successive formats in that a single picture and passage appeared on each page. The boards were designated as simultaneous formats since the entire set of pictures and passages were displayed on them. Stationary boards had pictures and passages affixed to them; manipulative boards allowed subjects to position pictures above the passages after reading the passage and examining the picture. Posttests of 50 multiple-choice questions were administered. Thirty of these were deemed passage items and assessed factual recall and definitions, understanding conceptual relationships and generalizations; 20 picture items assessed understanding conceptual relationships based on image recall, and comparing objects within and/or between pictures. Each board group outscored the booklet group. Differences between board groups were nonsignificant. High interest groups outscored low interest groups.

SAUNDERS, ROBYN J., & SOLMAN, ROBERT T. The effect of pictures on the acquisition of a small vocabulary of similar sight-words. *British Journal of Educational Psychology*, November 1984, *54*, 265-275.

Investigates, in two experiments, the effects of pictures on learning to read a set of isolated, similar, common nouns. In Experiment 1, 70 children were randomly selected from the kindergarten classes in three New South Wales Government (Australia) schools. Seven boys and seven girls were randomly allocated to each of five experimental conditions. The children in four of the groups learned five words by using a picture of the item represented by each word; in two of these groups the children had their attention drawn to the fact that the word and accompanying picture represented the same thing. No mention was made of this relationship to the children in the other two subsections. A control group viewed only words. First and last letters were the same for the five words. Within the two association groups, one unit of subjects saw the word just prior to viewing the picture and one unit saw them simultaneously. Results indicated that both the instructions to associate the word and the picture and the viewing of the word prior to the presentation of the picture failed to improve performance. Spaced presentation of picture and word gave better results than did simultaneous presentation. Control children recognized more words on the postlearning trial than the subjects in the pictorial group. A total of 56 kindergarten children participated in Experiment 2. Pupils in two of the four groups learned the five words with the aid of pictures, with one section seeing the picture one second prior to the word (the primed group) and the others seeing the picture one second after the word (unprimed group). The subjects in the remaining two segments were used as controls, with those in one unit viewing a blank card one second prior to the word, and the other group viewing the same card one second after the word. Results showed no differences in performance between the primed and unprimed conditions but, again, children who did not view pictures outperformed those who did.

Stone, David E., & Crandell, Thomas Leon. Relationships of illustrations and text in reading technical material. In Barbara A. Hutson (Ed.) *Advances in Reading/Language Research*, Vol. 1. Greenwich, CT: Jai Press Inc., 1982, 283-307.

Investigates the ability of undergraduates ($n = 30$) to comprehend instructions for the assembly of a model when spatial, sequential or referential information was emphasized in text and illustration. Subjects learned the names of the model parts, and then read the text and viewed the illustrations at their own pace. Half the students wrote a free recall prior to assembling the model, and half did the reverse. Videotapes of the assembly process were recorded and transcribed. A type of propositional analysis was performed on both forms of recall and compared with propositions from the text and pictorial directions. Verbal recall was best in the referential condition, followed by the sequential condition, and then the spatial condition ($p < .0005$). There were no treatment differences in nonverbal recall. Nonverbal recall was better in all conditions than verbal recall ($p < .001$).

Hinder, Eugen. Effects of verbal and pictorial context cues on free recall and clustering of text themes. In August Flammer & Walter Kintsch (Eds.) *Discourse Processing*. Amsterdam & New York: North-Holland Publishing Company, 1982, 279-289.

Examines the effects of illustrations and verbal context cues on the amount of retention and the manner in which retained information is organized. Subjects were 163 seventh graders. They read 16 prose passages, each about a different sport. The passages could be grouped according to two alternate category systems of four categories each. The passages were accompanied by either a pictorial or verbal illustration representing the categorically related instances. The dependent variables were the total number of sports recalled without direction and the grouping of the sports when told to recall by writing related sports in groups or category clusters. Pictorial illustrations improved free recall and free recall clustering. The results indicated that picture adjuncts affected not only the amount of retention, but also its organization.

Hildyard, Angela, & Hidi, Suzanne. Remembering what you said versus remembering what you wrote: Children's recall of their own oral and written narratives. In August Flammer & Walter Kintsch (Eds.) *Discourse Processing*. Amsterdam & New York: North-Holland Publishing Company, 1982, 269-278.

Examines the effect of modality upon 36 sixth graders' productions of narratives and upon their recall of these productions. Children were assigned to either an oral or written production group. They were given one of five story introductions and asked to tell or write a continuation of the story. Four days later, the children were asked to recall their story. Half of each group of subjects recalled orally and half recalled in writing. The original written narratives were judged superior to the oral narratives. The students with the highest recall were students who wrote both the recall and the original story, whereas the students with the lowest recall were those that produced oral stories and oral recalls. Concludes that the act of writing permits more careful analysis of structure and content, and that writing promotes differential encoding at both production and recall.

Barron, Roderick W. Reading skill and reading strategies. In Alan M. Lesgold & Charles A. Perfetti (Eds.) *Interactive Processes in Reading*. Hillsdale, NJ: Lawrence Erlbaum Associates, 1981, 299-327.

Examines in two experiments how differences in reading skill are related to differences in the use of visual-orthographic and phonological information in word recognition and in comprehension. There were 64 fifth and sixth grade subjects in each study. In each study the subjects were classified as good or poor readers on the basis of the *Gates-MacGinitie*

Reading Tests. The average IQ of good and poor readers on the *Canadian Lorge-Thorndike Intelligence Test* was 105. Stimuli in Experiment 1 were 80 phonically-regular and 80 phonically-irregular words, which varied systematically in frequency. Subjects' task was to identify the words as real or nonwords. Stimuli in Experiment 2 were seven-word study sentences matched against test sentences in which the subject and verb of the study sentence were reversed. Subjects' task was to view one sentence after the other and state whether they were the same or different. This were done as reading and listening tasks with or without a vocalization task of counting to 10. Children who differed on a standard test of reading comprehension also differed in the strategies they used in recognizing printed words.

CASALE, ULA PRICE, & MANZO, ANTHONY V. Differential effects of cognitive, affective, and proprioceptive instructional approaches on vocabulary acquisition. In George H. McNinch (Ed.) *Reading Research to Reading Practice*. Third Yearbook of The American Reading Forum. Athens, GA: The American Reading Forum, 1983, 71-73.

Investigates the effects of three forms of vocabulary instruction on children's meaning acquisition. Subjects ($n = 27$), who were fifth- and sixth-grade pupils, were randomly assigned to six groups. The groups were rotated by treatment, lesson time, teacher, and lesson content. Three lists of eight words at the fifth and sixth grade level were selected from the *Teacher's Word Book of 30,000 Words*. Volunteer teachers ($n = 6$) taught each list by each method. Three methods of teaching the vocabulary were used. The Dictionary approach consisted of a worksheet on which each of the eight words was followed by a sentence in which the word appeared. Subjects copied a suitable definition from a dictionary. The Subjective Approach to Vocabulary (SAV) involved the student writing each word on an index card, and the meaning on the back. The teacher elicited associations from the students, one of which was written below the definition. The Visual-Auditory-Kinesthetic (VAK) approach involved the students in performing an individual pantomime of the meaning of the word. Each approach ended with students reading a short passage containing the new words, followed by a teacher led discussion of the passage. Three posttest assessments were employed. Recall required the student to write a definition. Recognition was assessed by a four-choice multiple-choice test. Context required the completion of a sentence from three choices. The VAK and SAV methods were more effective than the Dictionary method in terms of recall ($p < .01$) and recognition ($p < .01$).

PILLMER, H. THOMPSON, & CLIETT, JR., WILLIAM C. Drawing meaning from words. *New England Reading Association Journal*, Winter 1984, *19*(1), 26-29.

Explores whether sixth grade pupils' learning and memory of vocabulary words is facilitated when both brain hemispheres are used. Subjects were sixth- and seventh-grade pupils, with two classes designated as experimental and two as control. Experimental classes were taught to draw a sketch representing an image of the vocabulary word for the right hemispheric representation and to write the word in a sentence for the left hemisphere. Control groups did not draw the pictures, but studied the words and wrote sentences. At the end of 6 weeks and 12 weeks, subjects were posttested on all the taught words. Gains were not statistically significant, although the experimental group had higher mean scores on both testings.

SWANSON, H. LEE. Phonological recoding and suppression effects in children's sentence comprehension. *Reading Research Quarterly*, Summer 1984, *19*, 393-403.

Investigates the role of phonological recoding (subvocalization) in comprehension of two age groups of children. Subjects were 12 10-year-old and 12 14-year-old boys, identified by teachers as of average reading ability. Materials consisted of eight stories, five to seven sentences in length, and followed by 16 recognition sentences representing four question types. Each child read half the stories silently and listened to the other half. Within each condition (silent reading, listening) two of the stories were presented under counting-task conditions. Nonsuppressed test sentences were better recognized than suppressed test sentences. Noun meaning, verb meaning, and concept within sentences were better recognized than the integration of concepts across sentences. Thus, in general, reading and listening were poorer when speech recoding was suppressed for both age groups. However, impaired speech recoding had less impact on sentence recognition when sentences were highly inferential.

McMahon, Margaret L. Development of reading-while-listening skills in the primary grades. *Reading Research Quarterly*, Fall 1983, *19*, 38-52.

Obtains information about 15 first- and 15 third-grade pupils' ability to coordinate reading and listening. All children came from reading groups described by their teachers a average or below average in reading ability. Two versions of three stories, one aural and c written, were prepared at each grade level. Length was about 220 words at grade one a ranged from 433 to 560 words at grade three. Stories were prepared so that there were abo 15 nonmatching words between the two text versions at grade one and about 21 at grade 3. Aural versions were read to children as they followed along. Oral reading rate for one story was recorded to be at a rate within three words per minute of a child's observed oral rate. A second story was recorded at a rate determined by the mean of children's oral reading rates, and a third story was recorded at 35% faster than the observed oral rate for each child. Children were asked to signal when a mismatch between written and aural versions appeared. First graders made 261 responses, 212 of which were item detections; 437 of 506 third-grade responses were detections. Detection of mismatched items decreased with increased listening rate. Content word mismatches were detected more frequently than function word mismatches by third graders at all three rates; but no interaction was noted between form and rate of grade one.

Sannomiya, Machiko. Modality effect on text processing as a function of ability to comprehend. *Perceptual and Motor Skills*, April 1984, *58*, 379-382.

Compares the effect of an auditory versus a visual modality on the reading comprehension of good and poor comprehenders. Subjects were 28 sixth graders termed the good comprehenders and 28 third graders termed the poor comprehenders. Subjects were presented text either visually or auditorily followed by an eight-item memory test and a 10-item comprehension test. The poor comprehenders did better with the auditory than the visual presentation, but no modality effect was found for sixth graders (good comprehenders).

Sannomiya, Machiko. The modality effect on text processing as a function of organization. In August Flammer & Walter Kintsch (Eds.) *Discourse Processing*. Amsterdam & New York: North-Holland Publishing Company, 1982, 263-268.

Examines the effect of presentation modality on text memory. Subjects were 60 Japanese undergraduates. Subjects were presented an organized or disorganized text of approximately 500 Japanese letters. The disorganized text was constructed by altering the sequence of the propositions of the organized text. The texts were presented in one of three modalities: auditory, visual, and audiovisual. The dependent variable was number of propositions recalled. Organized text was better recalled than disorganized. No modality effect was found for the organized text, but the disorganized text was better recalled in the auditory modality. There was no significant interaction between the serial location of the proposition in the text and presentation modality. Concludes that there is an automatic transmission of visually presented verbal stimuli into a auditory form.

Simpson, Michele L., & Thomas, Keith J. A comparison of oral and written text: A new perspective. *Reading Psychology,* 1984, *5*(3-4), 253-266.

Proposes to determine the relation existing between varying levels of reading competency and modes of content presentation. The 368 high school sophomores used as subjects were stratified into three groups according to total scores on the *Nelson-Denny Reading Test.* Students were then randomly assigned to one of the following treatment/presentation conditions: 1) listening to a lecture, 2) listening to an audio tape of the lecture, 3) reading a text equivalent in content and superstructure to the lecture, and 4) reading a text with the focused ideas that were stressed in the lecture cued by underlining and capitalization. A 30-item multiple-choice test was given immediately and one week later. Additionally, a cloze test was administered at the delayed posttesting and was used to confirm or deny the initial stratification of reading level. A total of 192 students made up the final data analysis sample. No significant differences were found for immediate learning across presentation modes. For delayed learning, students in the listening presentation scored significantly better than those in the reading presentations. In all modes, good readers outperformed average and poor readers.

Busch, Robert F., & Hardin, Veralee B. The relationship between learning preference and performance on ITA mini-lessons. *Reading-Canada-Lecture,* April 1983, 2(2), 45-54.

Investigates the relation between modality processing abilities of 50 third- and fourth-grade disabled readers and performance on i.t.a. mini-lessons. Auditory processing was assessed by the Auditory Discrimination subtest of the *Auditory Skills Test Battery,* the Auditory Attention Span for Unrelated Words subtest of the *Detroit Tests of Learning Aptitude* (DTLA), and the Auditory Attention Span for Related Syllables subtest of the DTLA. The Developmental Test of Visual-Motor Integration, and the Visual Attention Span for Objects and Visual Attention Span for Letters subtest of the DTLA were administered as measures of visual processing skills. Each child was individually administered the i.t.a. Mini-Lessons and Rechecks. No significant relations were found between any of the modality predictor variables on performance on the mini-lesson or on the rechecks.

Cowen, Paul S. Film and text: Order effects in recall and social inferences. *ECTJ,* Fall 1984, *32,* 131-144.

Compares film and text with regard to order effects in impressions, judgments, inferences, and recall. The study was conducted in three phases with different groups of 60 introductory psychology students used as subjects in each phase. In Phase 1, recall in the two media was compared. Subjects were randomly assigned to one of four groups in which either introvert (I) or extrovert (E) content was presented in either film or text form. Subjects were told to form an impression of a character from either reading text or viewing a two-minute film. Following the reading or viewing, subjects responded to a 50-item impression questionnaire and were also asked to recall the story. No significant effects were found due to medium of presentation, but there were differences between impressions of E and I versions. Film recall was significantly better than text recall. In Phase 2, conflicting content in conflicting media was combined while varying order of presentation. Results indicated that film has greater impact than text when their contents are mutually inconsistent. In Phase 3, differences between text and film processing were assessed by keeping the medium constant while manipulating the order of episodes. When earlier information conflicted with later information, relative recall scores and impressions showed an advantage for the first text episode, but not for the first film episode.

SALOMON, GAVRIEL, & LEIGH, TAMAR. Predispositions about learning from print and television. *Journal of Communication*, Spring 1984, *34*(2), 119-135.

Cites results of two studies done with 64 and 87 sixth graders, respectively, in a Jerusalem public school and investigating whether children's preconceptions concerning TV and print affect the depth with which they process the information. In the first study, pupils were administered two 9-item Likert-type scales, one for print and one for TV, in which they were asked to indicate how much effort they ordinarily invested in using nine types of materials (adventure, family, detective, sports) as well as how much TV or print made them think, how much material could be remembered, and how much effort they expended in that medium. Pupils then were assigned randomly to a TV or print version of the same story, followed by a second questionnaire asking for the amount of effort expended. A single Amount of Invested Mental Effort (AIME) score was then computed for each subject. A 14-item factual recall and inference test was given over the story. The AIME reported by the TV group was significantly smaller than that reported by the print group. Correlation coefficients between IQ and comprehension scores were smaller for the TV group than the print group. With AIME scores held constant, the coefficients for both TV and print increased. High ability pupils performed better with print; low ability pupils performed better with TV. For the second study, children were also randomly assigned to the print or TV version of the story. Within each condition, half the children were instructed to view or read for fun and half, to see how much they could learn from it. More effort was expended in both media under the learn than under the fun condition. Increase in AIME was larger for the TV group than for the print group. The learn condition led to significantly increased inference scores for the TV group but decreased inference scores for the print group. Recall scores were unaffected.

WRIGHT, P., & LICKORISH, A. Investigating referees' requirements in an electronic medium. *Visible Language*, Spring 1984, *18*, 186-205.

Asks eight academics to read and rate two journal articles presented either in page format on paper or on a CRT screen. Data collected included: 1) details of how the task was undertaken, 2) individual referee's assessments of the two presentation media, and 3) the effect of presentation medium on the evaluation of the article's merit. Four referees began with an article in page format, and four in screen format. Order of the two articles was also reversed. Six of the eight referees took longer to read and react to the article in screen format. On the average, an extra five minutes was spent in reading the article on a screen than on paper. Subjects felt that the screen version made no difference to such things as making notations, commenting to the editor, or following the author's argument. Seven of the eight readers felt that legibility was reduced in the screen version and that moving about within the article was more difficult. A tendency (nonsignificant) was found for the article on paper to be given poorer average ratings than when on the screen.

SALOMON, GAVRIEL. Television is "easy" and print is "tough": The differential investment of mental effort in learning as a function of perceptions and attributions. *Journal of Educational Psychology*, August 1984, *76*, 647-658.

Addresses the question of how differential perceptions of TV and print held by children are related to perceived self-efficacy in learning from them, and how perceptions relate to the amount of invested mental effort (AIME) and learning. Subjects were 124 sixth graders who were first given a task assessing their causal attributions to success and failure in learning from each medium, and their perceived self-efficacy in learning from the two media. Subjects were then randomly assigned to either a TV group or a print group for comparable versions of the same topic. Following viewing or reading, children responded to a questionnaire asking their self-reports of AIME in comprehending text or film. Finally a measure of inference making and factual recognition was administered. Children reported TV to be more realistic than print and also reported themselves as significantly better with TV than with print. Success in comprehending print tended to be attributed to internal factors such as ability and effort but less than one-fourth of subjects chose internal causes to explain success in comprehending TV. External causes were chosen by 62% to explain failure with print, whereas 44% chose internal causes to explain success in comprehending TV. Efficacy correlated positively with AIME in print ($r = .37$) and negatively in TV ($r = -.49$).

PEZDEK, KATHY; LEHRER, ARIELLA; & SIMON, SARA. A comparison of children's cognitive processing of television, radio, and books. In Malcolm P. Douglass (Ed.) *Claremont Reading Conference Forty-Eighth Yearbook*. Claremont, CA: Claremont Reading Conference, 1984, 217-227.

Studies the cognitive process involved in comprehending television and radio and compares them to the cognitive processes involved in reading comprehension. Subjects were 48 third and 48 sixth graders. Three matched versions of two folk tales were prepared: a story book with colored pictures, a radio version, and a television version in color. The audio tracks of the radio and television versions were identical and also the same as the book version. In addition to these two narrative stories, all subjects heard (radio) or saw (television) one expository segment. Subjects read one story and heard or saw the other story, and then heard or saw the expository passage. Five measures of reading comprehension followed each story presentation: a 16-item test, a sentence recognition test, a sentence reordering test, a picture recognition test, and a picture reordering test. Comprehension of the expository passage was also assessed with a 9-item test. All third graders were also given the *Cooperative Primary Test*, and all sixth graders, the *Test of Basic Skills*. In general, subjects in the television and reading conditions performed equally well, and both performed significantly better than the radio group. Correlation coefficients between reading comprehension and television comprehension were minimal, but correlation coefficients between reading and radio comprehension were significant: .54 for third graders, and .48 for sixth graders. Similarly, the correlation coefficients between standardized reading achievement scores and the various measures of comprehension were mixed, with correlations for achievement and radio presentations generally the highest (.18 to .82).

BAUER, CAROLYN J.; CAMPBELL, N. JO.; & TROXEL, VERNON. Altering attitudes toward the mentally handicapped through print and nonprint media. *School Library Media Quarterly*, Spring 1985, *13*, 110-114.

Utilizes print, film, and discussion in an attempt to alter attitudes of children toward the mentally handicapped. Involved were 76 grade four and 89 grade seven pupils. At each grade level, three treatment groups and a control group were formed. The three treatments consisted of the following: 1) Film only with follow-up discussion; 2) Book read to pupils plus follow-up discussion; 3) Film and book plus discussion. A modified version of the *Multidimensional Attitude Scale on Mental Retardation* was administered. Analysis of variance procedures were employed. A significant difference was found only for fourth graders receiving the book-only treatment over the control group.

IV-5 Experiments in learning

Moore, David W., & Readence, John E. A quantitative and qualitative review of graphic organizer research. *Journal of Educational Research,* September/October 1984, *78,* 11-17.

Utilizes a meta-analysis procedure in reviewing research about the effect of graphic organizers on learning from text. Twenty-three studies were included in the review, and 161 effect sizes were computed. Learners given a graphic organizer outperformed controls by about .2 of a standard deviation. The authors note the findings revealed that graphic organizers tended to produce only a small effect on learning from text, but that those effects varied widely. Graphic post organizers appeared to produce larger effects than graphic advance organizers. The post organizer benefit was hypothesized as attributable to student involvement. Additionally, graphic organizers: 1) affect vocabulary knowledge more than overall comprehension, 2) equally affect short- and long-term learning, and 3) appear to aid teachers clarify their instructional goals by providing a map of concepts to be taught.

Slater, Wayne H.; Graves, Michael F.; & Piché; Gene L. Effects of structural organizers on ninth-grade students' comprehension and recall of four patterns of expository text. *Reading Research Quarterly,* Winter 1985, *20,* 189-202.

Examines the effects of prior information about the organization of expository passages on subjects' abilities to comprehend and recall text. A total of 224 high-, middle-, and low-ability ninth graders were randomly assigned to one of four prereading treatments based on the reading comprehension subtest of the California Achievement Test: 1) structural organizer with outline grid, which consisted of information on the organization of the passage and a skeleton outline depicting the passage organization; 2) structural organizer without outline grid; 3) control condition with notetaking; or 4) control condition without notetaking. Subjects read eight target passages matched for length, idea units, hierarchical levels, and readability. Each passage was categorized as representing a structure of either claim-counterclaim, claim-support-conclusion, cause-effect, or problem-solution. Results indicated that the structural organizer with outline grid reliably ($p < .01$) and markedly aided comprehension and recall, and that the structural organizer without outline grid reliably ($p < .01$) aided comprehension but not recall. These effects were similar across the three ability group, across the four organizational patterns, and across various hierarchical levels of the passages.

Slater, Wayne H. Teaching expository text structure with structural organizers. *Journal of Reading,* May 1985, *28,* 712-718.

Analyzes whether subjects' comprehension and recall of expository material improves if they receive information about the passage organization before reading, whether the effects are similar for students of varying reading ability, and whether effects are similar for differently organized passages. Subjects were 224 ninth graders classified as good, average, or low comprehenders based on the comprehension subtest scores of the *California Achievement Test.* Eight expository passages from an American History text were controlled for length, idea units, and readability, with two passages organized for each of four top-level structures: claim-counterclaim, claim-support-conclusion, cause-effect, and problem-solution. Subjects in experimental conditions were given two types of structural organizers, one including an outline grid of the passages's top-level organization, and one without a grid. Other materials included descriptions and examples of top-level structures and described the benefits of using structure as an aid for remembering. All subjects wrote a recall and completed a 20-item multiple-choice test after reading. Subjects recalled more idea units and scored higher on the multiple-choice test when receiving the structural organizer and completing the outline grid. The effects of treatment were similar for each ability level group and for each type of expository structure. Control subjects in a notetaking condition, however, outperformed the experimentals receiving the structural organizer without the outline grid.

KANN, ROBERT, & TELFER, RICHARD. The implications of research on adjunct questions for instructional practices. In George H. McNinch (Ed.) *Reading Research to Reading Practice*. Third Yearbook of The American Reading Forum. Athens, GA: The American Reading Forum, 1983, 26-29.

Reviews research concerning the effects of question placement and question level on text comprehension. It is concluded that both prequestions and postquestions have a facilitative effect upon the comprehension and retention of question-relevant information, but that postquestions also have a general facilitative effect. Further, higher level questions seem to be more effective than lower level questions, and this may be because they require students to use lower level information to construct answers. The placement effect for high and low level questions also differs. Implications are drawn for instruction.

DUCHASTEL, PHILIPPE C., & NUNGESTER, RONALD J. Adjunct question effects with review. *Contemporary Educational Psychology*, April 1984, *9*, 97-103.

Compares the effects of questions placed at the end of a reading with the effects of questions interspersed throughout the reading when review of the materials was permitted after a question was encountered. Subjects (138 suburban 10th graders) read a 1700-word history passage. The Inserted Questions group received 12 questions, one at the end of each paragraph; the Post Questions group received 12 questions at the end; and the Control group received no adjunct questions. Subjects in both experimental conditions were encouraged to look back to check their answers if they were unsure. A retention test (the 12 items of the adjunct questions and 12 new items) was administered two weeks later. On the adjunct question items, both experimental groups performed better than the control group, but no differences were found on the new items. The two groups did not differ significantly on the number of adjunct questions correctly or incorrectly answered.

MEMORY, DAVID M. Written questions as reading aids in the middle grades: A review of research. In Jerome A. Niles & Larry A. Harris (Eds.) *New Inquiries in Reading Research and Instruction*. Thirty-first Yearbook of The National Reading Conference. Rochester: The National Reading Conference, 1982, 71-76.

Reviews 33 studies concerning the effects of adjunct questions on the short-term and long-term retention of information from texts by pupils in the fifth through eighth grades. Results are tabulated in terms of the types of adjunct questions compared, the number of comparisons favoring each type of question, the mean of differences as a percentage of total score, and the binomial probability levels. It is concluded that interspersed literal questions can enhance the learning of directly stated information to which those questions refer, higher-level adjunct questions enhance learning only by students who can understand and answer those questions, and adjunct questions massed before a selection rarely enhance learning of stated information to which those questions refer.

DREHER, MARIAM JEAN, & GAMBRELL, LINDA B. Teaching children to use a self-questioning strategy for studying expository prose. *Reading Improvement*, Spring 1985, *22*, 2-7.

Investigates whether children's learning of expository passages can be improved by teaching them how to formulate questions on the main idea of paragraphs, whether they would apply the study strategy when not specifically instructed to do so, and whether they would remember the strategy after a two-week period. Sixty-six sixth grade boys from a private school were randomly assigned to three treatment groups: Question Instruction Group, where they learned to formulate good questions; Question Writing Group, where they wrote questions but received no training on the appropriate kinds of questions to generate; and Read, Recite, Review Group. Instruction took place in two sessions, separated by one day. After instruction, subjects were given two separate comprehension tests at four day and nine day intervals. For the first testing, they were asked to use the study technique they had been taught. On the ninth day, they were not given specific instructions. Two and a half weeks later, subjects were asked to write instructions telling a child how to study. Main effect for study technique was not statistically significant on either comprehension test, although significant differences found for question type and for the interaction of technique and question type varied for the two testings. With no specific instruction to do so, only 20% used the strategies they had been taught. When asked to tell a new child how to study, 47% gave the steps of the taught treatment and 49% give a different method, one not taught to any of the three groups.

STROHNER, HANS; RICKHEIT, GERT; & WEINGARTEN, RUDIGER. Children's knowledge of social action: Effects on comprehension and recall of simple stories. In August Flammer & Walter Kintsch (Eds.) *Discourse Processing*. Amsterdam & New York: North-Holland Publishing Company, 1982, 42-52.

Examines the effects of children's knowledge about the qualitative structure of social action on the processing of complete and incomplete stories. Subjects were 48 German speaking children: 16 younger nursery schoolers with a mean age of 4-11, 16 older nursery schoolers with a mean age of 6-6, and 16 grade 5 school children with a mean age of 11-4. Each child listened to four texts about well-known social events. The texts were either complete, three-part episodes, or one of three combinations of two parts of the episode. Children were asked to recall complete episodes and were asked questions regarding the incomplete episodes. Young nursery school children with high reproduction scores showed a tendency to complete the incomplete versions of the texts. In grade 5 children there was a negative relation between reproduction and completion performance.

LEVIN, JOEL R. Pictures as prose learning devices. In August Flammer & Walter Kintsch (Eds.) *Discourse Processing*. Amsterdam & New York: North-Holland Publishing Company, 1982, 412-444.

Reviews research related to the use of pictures as devices for making prose content more memorable. Much of the review and theoretical discussion is related to mnemonic strategies designed especially for storage and retrieval of difficult-to-remember information. Also argues that prose-learning strategies that combine the critical components of comprehension-directed techniques with those of memory-directed techniques would be the most successful

JONES, GREGORY V., & PAYNE, MARTIN S. Recall and the flexibility of linguistic processing. In August Flammer & Walter Kintsch (Eds.) *Discourse Processing*. Amsterdam & New York: North-Holland Publishing Company, 1982, 314-324.

Examines the effects on recall of directing people's attention towards differing components of linguistic material. Subjects were 40 university students. Each subject was presented orally 24 different sentences to remember. All sentences were of the form Location-Subject-Verb-Object. Subjects were directed to concentrate their attention: to all four content words, to the first two content words, to the last two content words, or a combination of the first two words together and the last two words together. Subjects' recall was cued by the sentence frames with one, two, or three of the content words deleted. The results are analyzed in terms of a fragmentation model and are found to be consistent with the existence of limitations imposed by finite reserves of nonspecific linguistic processing resources.

KLAUER, KARL JOSEF. Subjective versus objective pre-information as a determinant of students' choices of instructional texts and their subsequent learning therefrom. In August Flammer & Walter Kintsch (Eds.) *Discourse Processing*. Amsterdam & New York: North-Holland Publishing Company, 1982, 472-481.

Examines the effects of subjective versus objective pre-information about instructional texts on students' choices and learning. Three experiments were conducted, with a total of 481 subjects. Most subjects were German students preparing to become teachers in grades 11-13, though some were in grades 5-10. Two 2,000-word reading texts were prepared, each with an appropriate topic heading. Subjective pre-information connected the subject matter of the text to the reader's future life as a teacher whereas the objective pre-information consisted of a text summary. Subjects read one of the two topic headings and both types of pre-instructions, one for one text and the other for the other text. They selected the text they wanted to read on the basis of this pre-information. Choice behavior was significantly influenced by the type of pre-information, but neither the amount or the quality of the learning was affected by it.

LODEWIJKS, HANS G.L.C. Self-regulated versus teacher-provided sequencing of information in learning from text. In August Flammer & Walter Kintsch (Eds.) *Discourse Processing*. Amsterdam & New York: North-Holland Publishing Company, 1982, 509-520.

Discusses three experiments the author has conducted to study the effects of self-regulated and teacher-provided subject matter sequences for a 16-week introductory physics course. Self-regulated sequencing meant that pupils received a table of contents in which the to-be-learned concepts were presented. From this index they chose the unit with which to begin, and after reading it chose the next, and so on. Teacher-provided sequences were arranged by expert opinion, logical prerequisite relations, inter-concept references, and randomly. In general, data revealed that subjects performed better on achievements tests under self-regulated conditions. Self-regulated subjects were also better able to construct an internal representation of the subject matter. Numerous aptitude-treatment-interactions were also studied and reported.

MARTIN, MARYANNE. Working memory and contextual processing in reading. In August Flammer & Walter Kintsch (Eds.) *Discourse Processing*. Amsterdam & New York: North-Holland Publishing Company, 1982, 239-250.

Investigates the role of working memory in mediating contextual influences on reading. Subjects in the experiment were 32 female adults. They read two sets of sentences with heteronyms, each set containing one member of the pair of sentences appropriate to each heteronym. In addition, there was for each heteronym a control word that did not fit either sentential context. Each sentence was accompanied by a memory load of either 0, 3, 6, or 10 digits. The digits were read aloud with instructions to remember them. Subjects were then shown the sentence without the heteronym. The heteronym was then exposed and was read aloud. Subjects then wrote the digits. The dependent variable was reaction time for correct pronunciation of the word and errors. Words with appropriate context were read significantly faster. There was also a significant effect of size of concurrent memory. The size of the memory load did not significantly affect the number of errors. Concludes that it is the central executive rather than the articulatory loop component of working memory that is crucial for contextual processing.

Simons, P. RobertJan. Concrete analogies as aids in learning text. In August Flammer & Walter Kintsch (Eds.) *Discourse Processing*. Amsterdam & New York: North-Holland Publishing Company, 1982, 462-471.

Summarizes the results of six studies designed to examine the effects of concrete analogies on amount of reading time and learning. Between 80 and 100 subjects participated in each study. Subjects were from college (two studies), high schools (three studies) and elementary schools (one study). All experiments consisted of three or four sessions of two hours each. During the first session a pretest was administered consisting of items from the posttest. Subjects were also tested to determine their background knowledge of the topic to be read. In the next session one of the three or four 20-page texts was studied in one of several conditions: text extended with one of two types of concrete analogies, text read only once, text reread, analogies woven into the text, analogies presented separately from the text, the efficiency method of equalizing the time-on-task of the various experimental groups, and several other variations. In general, the results indicate that subjects, when confronted with analogies, not only study longer, but learned more and different content. If the study time was limited however, these effects diminished. Further, some aptitude-treatment-interactions were found. Both theoretical and instructional implications are presented.

Mandl, Heinz, & Ballstaedt, Steffen-Peter. Effects of elaboration on recall of texts. In August Flammer & Walter Kintsch (Eds.) *Discourse Processing*. Amsterdam & New York: North-Holland Publishing Company, 1982, 482-495.

Evaluates the effects of prereading instructions and elaboration during reading on delayed written recall of text. Subjects were 24 German law students, reading a 453-word text on anthropology. There were four experimental conditions: reading with no instruction that there would be a test after reading and no directions to elaborate, informed of the test and no directions to elaborate, uninformed of the test and directions to elaborate, and informed of the test and directions to elaborate. Elaboration techniques were demonstrated to the two elaboration groups. Subjects were also administered portions of the *Intelligence Structure Test* and a memory test. The data indicated an inverted u-shaped relation between number of elaborations and recall: subjects who elaborate very little and a great deal recall significantly less than subjects who elaborate an average amount.

Duell, Orpha K. The effects of test expectations based upon goals on the free recall of learning from text. *Contemporary Educational Psychology*, April 1984, *9*, 162-170.

Explores the effect of goal organization (topic goals and attribute goals) and test expectation on the amount of information retained and the organization utilized in free recall. Subjects, 81 undergraduate volunteers, were taught to expect to receive completion test items if given a topic goal and sorting test items if given an attribute goal. Students were then given three envelopes: a passage and a list of either topic or attribute goals; a packet of 12 subtraction problems to be used as an intervening task; and the test instructing them to either recall the first 15 facts remembered or as many facts as they could remember. After testing, subjects completed a strategy questionnaire with self-report data on steps they went through while preparing for the test. The majority organized their recalls according to topic organization regardless of the goals they had been given. Those asked to recall 15 facts recalled significantly fewer of the goal-relevant facts. Strategy analyses indicated that the subjects used the goals to cue rehearsal after reading the passage.

Ferrante, A.P., & Schneider, H.G. Feedback and instructions in verbal discrimination learning. *Psychological Reports*, October 1981, *49*, 547-550.

Measures the effect of feedback, task instructions, and feedback instructions on adults learning a low-frequency verbal-discrimination list. Subjects were 120 paid undergraduates. The learning task was a 12-pair verbal-discrimination list of 24 four-letter words. Stimuli were projected onto a screen. There were three types of feedback: right and wrong, right, or wrong; two types of task instruction: informed or uninformed regarding the nature of the learning task; and two types of feedback instructions: informed or uninformed about the type of feedback to expect during the learning trials. The dependent variable was number of errors to criterion. In the main effect comparisons for the three independent variables only the effects of task instructions were significant; subjects who were informed about the nature of the learning task learned in fewer trials than uninformed subjects. All three feedback methods were equally effective and there was no difference between the two types of feedback instructions. There were also no significant interactions.

Belmore, Susan M.; Matthews, Patricia; Bridge, Connie A.; Moskow, Susan P.; & Cohen, Sheila G. Effects of initial mention and orienting task on readers' comprehension of main idea. In Jerome A. Niles & Larry A. Harris (Eds.) *New Inquiries in Reading Research and Instruction*. Thirty-first Yearbook of The National Reading Conference. Rochester: The National Reading Conference, 1982, 29-36.

Investigates the effects of various orienting tasks upon the comprehension of expository paragraphs. Subjects (n = 54) were undergraduates, who were categorized as good or poor readers on the basis of the *Van Wagenen Rate of Comprehension Scale*. Subjects read 16 passages, in 8 of which the initial topic sentence was deleted. Students were assigned to one of three conditions. In the Generation condition, subjects were asked to write the main idea of the paragraph in their own words. In the Recognition condition, they were required to select the most appropriate main idea from a pair of similar statements. The Rating group marked how easy it was to understand the main idea on a seven-point scale. After reading all the passages subjects were asked to recall as many main ideas as possible. Recall statements and generated main ideas were rated for completeness and accuracy on a five-point scale. Good readers performed better than poor readers in the Recognition condition ($p < .05$) and Generation condition ($p < .01$) and on the recall test ($p < .01$). The Generation group outscored Recognition subjects on the recall task ($p < .05$).

Ganske, Ludwig. Note-taking: A significant and integral part of learning environments. *Educational Communication and Technological Journal*, Fall 1981, *29*, 155-175.

Argues that note-taking is relevant for study in the domain of educational technology by reviewing research on note-taking and proffering possible research questions. A premise of the paper is that note-taking is one of the few objective indices that directly reflects a learner's thought processes. The author utilizes a theory-of-knowledge framework for reviewing three types of note-taking research: comparison studies, training studies, and correlational studies. About 35 studies are reviewed. The author concludes with potential research questions and a set of assumptions about note-taking.

McCormick, Christine B.; Levin, Joel R.; Cykowski, Frank; & Danilovics, Paula. Mnemonic-strategy reduction of prose-learning interference. *ECTJ*, Fall 1984, *32*, 145-152.

Studies the effectiveness of two mnemonic processing conditions and a nonmnemonic control condition in reducing prose-learning interference. The 160 undergraduate students serving as subjects were randomly assigned to one of four conditions: 1) noninterference control in which subjects read three unrelated passages using their own strategies; 2) interference control in which subjects read three related (potentially interfering) passages applying their own strategies; 3) separate mnemonic, where three related passages were read, and subjects were instructed to incorporate the information into mnemonic representations; and 4) integrated mnemonic, where the images formed for each of the three related passages incorporated all 11 pieces of information into one composite image. In the three interference conditions, three biographies were constructed so as to be mutually confusing. Each contained 11 pieces of easy-to-visualize information. One was identified as the target passage. In the noninterference control condition, subjects read two 11-sentence passages on nonbiographical topics. All subjects read the target biography first, followed by the other two passages. Subjects read and studied all three passages under the specified conditions and then answered 11 questions on each passage. Integrated mnemonic subjects had a higher mean recall score than subjects in the other conditions.

LEIGHBODY, GLENN; ALBUM, DUANE; TSAO, YAO-CHUNG, & EVANS, CATHY. Interactive effects of mnemonic aids and instructions for use on recall by fifth grade readers. *Perceptual and Motor Skills*, June 1984, 58, 727-730.

Examines the effects of two mnemonic strategies (categorization and mental imagery) on three levels of readers. The 120 subjects were categorized as poor, average, or high readers based on standardized reading comprehension scores (unnamed). Subjects from each reading category were randomly assigned to one of four mnemonic conditions (each mnemonic with and without training). Subjects were then orally presented a list of 25 words, followed by a recall test. Subjects in the training conditions recalled significantly more words than those in the no training conditions. High readers recalled more words than poor readers. Training in the use of combined mnemonics had overall positive effects upon recall. However, the effects of single memory aids were more directly influenced by reading skills.

DUCHASTEL, P., & NUNGESTER, R. Long-term retention of prose following testing. *Psychological Reports*, October 1981, 49, 470.

Conducts a follow-up study of retention. In the earlier study, 60 high school students read a passage and then either completed a test, reviewed the passage, or went on to read an unrelated passage. After two weeks, a retention test was given. The test condition group scored significantly higher than the other two groups in this report. The same subjects were again tested five months after the initial test. Though the scores of the test group were higher, the F statistic was significant only at the $p < .10$ level.

BLOHM, PAUL L. Effects of computer-aided glossing on prose recall. In George H. McNinch (Ed.) *Reading in the Disciplines*. Second Yearbook of The American Reading Forum. Athens, GA: The American Reading Forum, 1982, 63-66.

Investigates the effect of providing paraphrases during the reading of computer-presented text on recall. Subjects ($n = 80$), who were undergraduate Education majors, were randomly assigned to read one of two texts in two conditions. One text was concerned with heat flow, the other with electrical conductivity. In one condition students could examine paraphrases of the text at specific points in the passage if they wished. In the other this option was not available. Subjects read the passages eight lines at a time, with no rereading. Written recalls were collected, and scored for idea units. The experimental group recalled more idea units for both passages ($p < .000$). The number of paraphrases activated did not affect recall. There were also no differences in time spent reading.

O'Shea, Lawrence J.; Sindelar, Paul T.; & O'Shea, Dorothy J. The effects of repeated readings and attentional cues on reading fluency and comprehension. *Journal of Reading Behavior*, 1985, *17*(2), 129-142.

Notes the effects of repeated readings and attentional cues on measures of reading fluency and comprehension. Subjects were 30 third graders who scored at or above grade level in total reading on the *California Achievement Test* and read from 70-119 words-per-minute on two fourth-grade level screening passages. Pupils were randomly assigned to one of two experimental attention focus conditions: 1) a cue to read quickly and accurately, or 2) a cue to read for comprehension. Passages were read orally 1, 3, or 7 times under both attentional focus conditions. Rate and proportion of story propositions retold were analyzed. Both fluency and comprehension increased as the number of repeated readings increased. Children cued to read quickly and accurately had a higher mean number of words read correctly per minute but a lower number of propositions retold than children cued to read for comprehension.

Metzger, Richard L., & Pambianco, Linda. The relationship between reading level and retention in average and supra readers. *Contemporary Educational Psychology*, January 1985, *10*, 52-57.

Considers the performance of average and above average readers on a partial report task with a variable interstimulus interval. Participants were 20 third graders and 20 fifth graders. Scores on the *Gates-MacGinitie Reading Tests* were used to designate average and above average readers. All subjects scored average or above on the *Otis-Lennon Mental Ability Test*. Children viewed eight figures for designated time intervals ranging from 0 to 1600 ms. on a screen and were to recall the one appearing in a target position. Better readers were more accurate than average readers in retrieving the target when the interstimulus interval was longer than 200 ms.

Corbett, Albert T., & Chang, Frederick R. Pronoun disambiguation: Accessing potential antecedents. *Memory and Cognition*, May 1983, *11*, 283-294.

Cites three experiments, all using paid undergraduate students as subjects (Ns = 24, 20, 24), in which two-clause sentences were read with an anaphoric reference in the second clause. The second clause anaphoric reference was either a pronoun or a repetition of the proper noun. Following each sentence, a probe word (one of the two proper nouns) was presented, and subjects were to decide if the word appeared in the sentence. Response times for the actual antecedent and nonantecedent were collected. The results indicated that when a pronoun appears in a text, any possible antecedents in the preceding clause will be accessed. Recognition responses for antecedents probes were not uniformly faster than responses to nonrecognition probes.

Lyon, Mark A., & Gettinger, Maribeth. Differences in student performance on knowledge, comprehension, and application tasks: Implications for school learning. *Journal of Educational Psychology*, February 1985, *77*, 12-19.

Examines learning rate (TTL) differences on tasks requiring knowledge, comprehension, application, and retention. Questions posed were: When difficulty level and amount of time exposed to learning materials are controlled, will there be significant differences in TTL at which subjects attain mastery of knowledge, comprehension, and application materials? Will there also be significant differences in the amount of material retained? The sample in this investigation consisted of 46 boys and 42 girls from seventh and eighth grades, who had been tested by the *Henmon-Nelson Tests of Mental Ability* and the *Stanford Achievement Test*.

Three experimental learning tasks were developed to assess student TTL, each providing a fictitious reading passage followed by a 15-item, multiple-choice criterion test. Subjects were given five repeated trials to master each of the tasks. Large differences were found in the rates of mastery of tasks, the amount of information acquired within each domain, and the retention of the material five days later. The knowledge task was learned at a faster rate and in more depth, and it was retained more fully than either the comprehension or application tasks. Similarly, the comprehension task was learned more efficiently and retained longer than the application task.

Luftig, Richard L. Abstractive memory, the central-incidental hypothesis, and the use of structural importance in text: Control processes or structural features? *Reading Research Quarterly*, Fall 1983, *19*, 28-37.

Investigates the effects of different types of recall expectations on the accuracy of making structural importance ratings of textual ideas and on the differential recall of idea units by importance levels. Subjects were 223 undergraduates enrolled in an introductory psychology class, 67 of whom served as raters of structural importance. This latter group was presented with an 810-word passage and was asked to make ratings of structural importance of the 80 idea units in the passage on an 8-point scale. The idea units were then rank ordered and placed in quartiles of importance. The 156 experimental learners were assigned randomly in groups of 13 to one of three experimental conditions: 1) general-expectation groups who were asked to remember as much as they could; 2) importance-expectation groups who were asked to remember the important phrases of the text; and 3) no-expectation groups who were told nothing about future recall requirements. Additionally, subjects either made ratings of structural importance or rated the passage on a nonsemantic variable. Recall was assessed either immediately or 48 hours later. Subjects who made ratings of structural importance recalled significantly more material than did subjects who rated ideas on a nonsemantic variable. Students who made importance ratings recalled more high-importance than low-importance material. Proportionately more high-importance than low-importance material was recalled after 48 hours than after the zero-retention interval.

Butler, Brian E., & Clark, Lynn A. Reading skill and sensitivity to inter-word constraint. *Perceptual and Motor Skills*, February 1985, *60*, 19-25.

Compares good and poor readers on their free recall of words varying in order-of-approximation to English. Two groups of sixth graders, 10 poor readers and 10 good readers, and a group of 10 university seniors served as subjects. Children were classified as good or poor readers on the basis of scores on the *Gates-MacGinitie Reading Test:* Survey D. Stimuli consisted of 16 lists of 20 words each presented on a cassette recorder. There were four lists each of the first-, second-, third-, and fourth-orders of approximation to English. Overall, adults were more accurate than children. No reliable differences was noted between good and poor readers.

Wender, Karl F. Inference processes in discourse comprehension measured by sentence reading times. In August Flammer & Walter Kintsch (Eds.) *Discourse Processing*. Amsterdam & New York: North-Holland Publishing Company, 1982, 166-171.

Reports the results of a preliminary study of the inferences drawn by adult readers when reading text in which several different inferences are possible. The 12 German subjects read German texts of 13 to 18 sentences. In each text, there were two critical sentences preceded by a sentence that was consistent, inconsistent, or neutral. Sentences were displayed on a screen one at a time. The dependent variables were time to read each sentence. There were no significant differences among the three conditions.

McGee, Lea M. The influence of metacognitive knowledge of expository text structure on discourse recall. In Jerome A. Niles & Larry A. Harris (Eds.) *New Inquiries in Reading Research and Instruction.* Thirty-first Yearbook of The National Reading Conference. Rochester: The National Reading Conference, 1982, 64-70.

Investigates the use of a problem/solution text structure by different age groups in composition and recall. Subjects were sixth-grade pupils ($n = 21$) whose reading grade equivalent scores were between 5.3 and 6.7 on the *SRA Standardized Achievement Test,* ninth grade students ($n = 18$) who scored between 8.1 and 9.8 on the Reading subtest of the *Stanford Achievement Test,* and undergraduates ($n = 18$) who scored between the 38th and 63rd percentiles on the *Nelson Denny Reading Test.* Three texts were written at 4th, 7th, and 10th grade readability levels, containing 200 words each and with a problem/solution top-level structure. Subjects in the recall condition were asked to read a practice passage and the relevant passage for their ability level and then to write all they could remember after each passage. In the composition condition subjects participated in a 20-30 minute discussion about topics they had recently studied. The discussion emphasized problems and solutions. Subjects then wrote a summary of the discussion. Recalls were scored for the percentage of idea units remembered. Recall and composition protocols were analyzed to determine how well information was organized into a problem/solution structure, and classified as showing a fully developed problem/solution structure, a less well-developed problem/solution structure, or a structure other than problem/solution. Adults and ninth graders recalled more than sixth graders ($p < .01$) and used the fully developed problem/solution structure more frequently in recall ($p < .001$). Sixth graders mainly used the less well developed structure in recall. In compositions sixth graders tended not to use a problem/solution structure, ninth graders tended to use the less well developed structure, and adults the fully developed structure ($p < .0001$).

Mathews, II, Samuel R. The impact of prior knowledge on accessibility and availability of information from prose. In August Flammer & Walter Kintsch (Eds.) *Discourse Processing.* Amsterdam & New York: North-Holland Publishing Company, 1982, 400-409.

Compares children's recall of a passage after hearing a passage that provided knowledge related to the target passage or hearing a passage that was unrelated to the target passage. Free and probed recall were assessed 24 hours after reading the passage. Subjects were 34 fourth graders. The number of correct freely recalled micropropositions in each protocol was called the accessible information. The responses to the eight probe questions were labeled as information available in memory, but not accessible. The overall amount of free recall did not differ significantly between the two conditions, indicating no differences in accessibility of information. The prior knowledge group did score significantly higher on the probed recall questions, demonstrating greater information availability. Further, when free recall responses were analyzed in terms of the hierarchical structure of the text, differences between the groups were found in favor of the prior knowledge group. Concludes that the impact of prior knowledge on accessibility of information was primarily qualitative and not quantitative.

Davey, Beth & Kapinus, Barbara A. Prior knowledge and recall of unfamiliar information: Reader and text factors. *Journal of Educational Research,* January/February 1985, *78,* 147-151.

Investigates the effects of prior knowledge and information orderings on the immediate and delayed recall of unfamiliar information. Reading ability and cognitive style were included as covariates in the analysis. Subjects ($n = 96$), who were eighth grade students, were administered the *Group Embedded Figures Test* as a measure of cognitive style, the *California Achievement Test* as a measure of reading ability, and a prior knowledge pretest concerning the topic of computers. Two passages of 800 words were constructed, differing in the placement of familiar (F) and unfamiliar (U) information. Subjects were randomly assigned to read the passage in UF or FU order, and completed one form of a 20-question multiple-choice test of the unfamiliar information immediately following the reading, and a parallel form of the test one week later. Scores on the immediate recall test were higher than on the test of delayed recall ($p < .05$). For high prior knowledge students, the mean score under the UF information order was higher than under the FU information order ($p < .05$). For all subjects immediate recall scores were higher with the UF ordering than the FU ordering, but no difference was apparent for the delayed recall scores. The combined contribution of the covariates, reading ability and cognitive style, was significant ($p < .05$), with reading ability being the main contributor. When scores were not adjusted for reading ability, the effect of prior knowledge was significant ($p < .05$).

Burton, John K.; Niles, Jerry A.; & Wildman, Terry M. Levels of processing effects on the immediate and delayed recall of prose. *Journal of Reading Behavior,* Summer 1981, *13*, 157-164.

Examines the effects on retention of physical interference and semantic interference tasks. Subjects were 243 college students. Each subject read one 302-word 10th grade level passage. Fifty-nine words in the passage were identified as target words. There were 7 types of interference tasks: 3 physical, 3 semantic, and one normal or noninterference condition. The physical interference tasks required the subject to count the number of e's in the target word, indicate the preceding letter of the alphabet for the first letter of the target word, and write a word that rhymes with the target word. The semantic interference tasks were to write a synonym for the target word, write an antonym, and fill in a cloze blank which provided the initial letter of the target word. In addition to dividing subjects into one of the seven interference groups, subjects took only one of the three retention tasks: immediately after reading, one week later, or two weeks later. Thus, there were 21 groups in total (7 interference tasks x 3 retention times). Retention was assessed by written story recalls. For recall of total number of ideas, normal reading conditions had significantly higher recall on the immediate retention test. There was a significant time of recall by condition interaction. On the two-week retention test, the synonym and cloze interference conditions had significantly higher recall scores than the normal condition. There was no significant difference between the physical and semantic interference tasks on the immediate retention task.

Anderson, Richard C. Allocation of attention during reading. In August Flammer & Walter Kintsch (Eds.) *Discourse Processing.* Amsterdam & New York: North-Holland Publishing Company, 1982, 292-301.

Reviews literature related to the theory that important text information is better learned than less important information because readers devote more attention to important information. Previous research showing that more attention is paid to important information is found to be inconclusive because the extra attention could be an epiphenomenon. New research indicates that attention is on the causal path between adjunct questions and learning, but is not on the causal path between the degree of interest of the material and learning.

Johnson, Ronald E. Retrieval cues and the remembering of prose: A review. In August Flammer & Walter Kintsch (Eds.) *Discourse Processing.* Amsterdam & New York: North-Holland Publishing Company, 1982, 219-238.

Reviews literature to ascertain the conditions under which retrieval cues assist in the remembering of prose. Special attention is given to comparisons in which cues are given prior to attempts at remembering as opposed to cues that are provided after learners have attempted recall on their own. Also examines the relative effectiveness of different types of retrieval cues. Concludes from the review of the literature that very little is known about the types of cues that can be used to facilitate or hinder the remembering of intact prose passages.

d'Ydewalle, Gery; Degryse, Eddy M.; & Swerts, An. Intentional learning in text processing. In August Flammer & Walter Kintsch (Eds.) *Discourse Processing*. Amsterdam & New York: North-Holland Publishing Company, 1982, 306-313.

Investigates the intentional learning of prose materials by 136 Belgian college students. Texts were presented in one of three conditions: with no directions for intentional learning, with directions to learn in order to complete a multiple-choice test, and with directions to learn in order to reproduce the entire story. Two 800-word texts of equal difficulty were used. After reading the first passage, subjects completed the type of test that matched their directions, with the no direction group completing a grammar task. After reading the second passage, all subjects completed only the story reproduction task. The dependent variable was the number of idea units reproduced. Idea units that are important for understanding the story were recalled well by all subjects; subjects expecting either test recalled significantly more of the details from the first part of the story than subjects not expecting a test. Those expecting a test recalled significantly more unimportant events. Expecting a multiple-choice test or a reproduction test did not produce significant differences in performance.

Bing, Sally B. Effects of testing versus review on rote and conceptual learning from prose. *Instructional Science*, July 1984, *13*, 193-198.

Examines the effect of testing on learning level (rote versus conceptual) as well as compares testing with other study activities on learning outcomes for high and low-achievers. Subjects were 110 rural secondary school students randomly assigned within classrooms to experimental conditions. Four classes were designated as high-ability readers and four classes were designated as low. The students studied a 2100-word passage and were then given either a posttest (rote or conceptual), a set of directions leading to structured or unstructured review, or a control group filler task. Rote and conceptual delayed retention tests were administered one week later. A 2 x 5 factorial was used to examine ability level (high versus low) by type of study activity (immediate rote test, immediate conceptual test, structured review, unstructured review, and a no review control group). Results indicated no significant effects for type of study activity. High ability students performed better than low reading ability students across all conditions.

Estes, Thomas H., & Richards, Herbert C. Habits of study and test performance. *Journal of Reading Behavior*, 1985, *17*(1), 1-13.

Analyzes the results of a study habits inventory administered to 168 ninth- and tenth-grade students. The *Inventory of Study Habits* was modified so that students were asked to rate on a four-choice Likert scale their study behaviors related to preparation of homework assignments and preparation for a test. In the first condition, students were assigned homework due on the day the Inventory was administered and were asked to apply their ratings to the homework task; in the alternate condition, students took a test in class and then applied their ratings on the Inventory to the completed test. The data were factor analyzed to yield three constituents of study practices: distractibility, compulsiveness, and inquisitiveness. These factors satisfactorily replicated factors found in previous research and accounted for over 50% of the total variation of the items in the Inventory. Tests of hypothesized relationships between habits of study and test performance suggested that test performance is monotonically related to study behaviors associated with inquisitiveness, particularly for studying as part of homework preparation. Compulsivity was also related to performance but only in the distinction between "A" students and those receiving other test scores. Distractibility, although it was the most reliable study habits scale, bore virtually no relationship to the test performance.

Britton, Bruce K.; Glynn, Shawn M.; Muth,, K. Denise; & Penland, M.J. Instructional objectives in text: Managing the reader's attention. *Journal of Reading Behavior,* 1985, *17*(2), 101-113.

Attempts to identify some of the mechanisms by which objectives affect learning. Seventy-two college students studied text under three conditions: with specific objectives, with a general objective, and with no objectives. Objective-relevant material was located either high or low in the content structure of the text. Allocation of students' cognitive capacity to target text segments was measured with a secondary task technique, consisting of response time to occasional random clicks by releasing a telegraph key. The secondary task was based on the assumption that the amount of cognitive capacity available to the reader is fixed; when more of this capacity is allocated to processing a text segment, less capacity remains for performance of other, secondary tasks. Thus, the dependent measures were secondary task reaction time (a measure of cognitive capacity use), reading time, and free recall for objective-relevant material. The results indicated that with specific objectives, the secondary-task reaction times while reading objective-relevant material were longer, reading times were longer, and recall was greater than with either a general objective or with no objectives. Reading times were significantly correlated with recall, but secondary task reactions were not. In addition, more information was recalled when the objective-relevant material was located high in the text structure. The researchers indicated that with specific objectives, students devote more cognitive capacity to objective-relevant material, spend more time reading it, and recall more of it than when they do not have specific objectives.

Dansereau, Donald F., & Holley, Charles D. Development and evaluation of a text mapping strategy. In August Flammer & Walter Kintsch (Eds.) *Discourse Processing.* Amsterdam & New York: North-Holland Publishing Company, 1982, 536-554.

Reviews selected research on the topic of networking, a content-independent text learning strategy that requires the student to transform text material into two-dimensional maps. The historical and theoretical foundations of networking, a description of the empirical assessments accomplished with networking, a comparison of networking with spatial text strategies, and a discussion of the future of networking.

Glowalla, Ulrich, & Colonius, Hans. Toward a model of macrostructure search. In August Flammer & Walter Kintsch (Eds.) *Discourse Processing.* Amsterdam & New York: North-Holland Publishing Company, 1982, 111-123.

Discusses and conducts an experimental test of the Rotor Faden model of macrostructure search. Unspecified subjects listened to two stories and then were tested on their retention. The retention test consisted of pairs of sentences; and the subjects had to decide if the sentences were from the same stories. All test sentences originated from three different types of macrostructure units: plans, episodes consisting of several actions, and a single action. Number of correct responses and reaction times were the dependent variables. The results are not explicitly stated, but the authors says they give some preliminary support to the Rotor Faden model.

Taub, Harvey A. Underlining of prose material for elderly adults. *Educational Gerontology*, July/September 1984, *10*, 401-405.

Asks whether underlining cues could be used to improve the comprehension and memory of elderly individuals, as well as reduce the vocabulary-related differences found within elderly groups. Four males and 20 females (mean age = 71.6) who were members of a senior citizens center were categorized into high or low vocabulary groups based on their scores on the vocabulary subtest of the WAIS. The high and low scoring groups significantly differed in years of education. All participants read two prose passages of approximately 700 words each and answered questions over each, both when the passages had been removed from view (memory questions) and when the passages were available for review (comprehension questions). Underlining of selected portions of the materials provided cues for half of the comprehension and half of the memory questions. The high vocabulary group had better performance than the low group in both the comprehension and memory tasks. Use of passages had a significant effect only for the low vocabulary groups, while underlining cues aided performance only of the high vocabulary groups. The researcher indicated that underlining cues were not successful in reducing vocabulary-related differences in performance.

Niegemann, Helmut M. Influences of titles on the recall of instructional texts. In August Flammer & Walter Kintsch (Eds.) *Discourse Processing*. Amsterdam & New York: North-Holland Publishing Company, 1982, 392-399.

Examines the hypothesis that titles influence the quality of the recall of instructional texts in a selective manner. Subjects were 48 German Gymnasium school students and 57 university students. All subjects read three texts of 550 to 750 words. Each text was read with one of two different titles or with no title. Comprehension was assessed by written recall. Subjects recalled more propositions related to the respective title.

Meyer, Bonnie J.F., & Rice, G. Elizabeth. Learning and memory from text across the adult life span. In Jonathan Fine & Roy O. Freedle (Eds.) *Developmental Issues in Discourse*, Vol. 10. Advances in Discourse Processes. Norwood, NJ: Ablex Publishing, 1983, 291-306.

Examines the effects of age, educational level, and verbal ability (assessed by vocabulary score) on reading recall by a review of the research and an experiment. Subjects were 148 young adults, ages 18 to 32, and 166 old adults, age 65 or older. Total reading recall (recall) and comprehension of logical relations (relations) were assessed on two 388-word expository passages. Vocabulary was assessed with the *Quick Word Test*. The correlation coefficient between vocabulary and recall was .43 for the young subjects and .56 for the old. Various comparisons between subgroups were made: random young vs. high verbal old, in which the two groups did not differ on either recall or relations; high verbal young vs. high verbal old, in which recall was higher for old subjects and relations was higher for young subjects; low verbal young vs. low verbal old, in which the old subjects scored significantly lower on both; and low verbal old vs. matching young, in which the old scored significantly lower on both. Though both groups had an average of 14 years of education, education and vocabulary were significantly correlated for the old subjects, .56, but not for the young .02.

IV-6 Visual perception

Keogh, Barbara K., & Pelland, Michele. Vision training revisited. *Journal of Learning Disabilities*, April 1985, *18*, 228-236.

Cites research and professional literature published between 1974 and 1984 on the efficacy of visual training. The authors first address the problems of defining optometric vision therapy and discuss for whom it is appropriate, then review evidence related to its effectiveness. It is noted that the research findings on the effectiveness are both ambiguous and equivocal. There has been a lack of consistency and marked variation in the content of vision training programs. Subjects have varied also. Thus no final conclusions can be reached as to the worth of such programs.

Green, D.W.; Hammond, E.J.; & Supramaniam, S. Letters and shapes: Developmental changes in search strategies. *British Journal of Psychology*, February 1983, *74*, 11-16.

Investigates letter and shape visual search strategies in children and adults to note developmental changes. Subjects were 20 five-year-olds, 20 seven-year-olds, and 20 young adults. Subjects viewed a target letter or shape and then were to ascertain whether it was present in a subsequent display of five characters. Correct response latencies improved with age and were faster with letters for all age groups. Left to right processing of letter strings became more established with age.

Heydorn, Bernard L. A comparative study of reading achievement in terms of symbol reversals in first grade children. *Reading Improvement*, Fall 1984, *21*, 210-211.

Investigates the relation between reading achievement and symbol reversal errors in 115 first grade children. Pupils were administered the *Jordan Left-Right Reversal Test*, Level 1, and the *Gates-MacGinitie Reading Tests*, Basic R. The 77 children who made four or more reversal errors were designated as symbol reversers; the 38 who made three or fewer errors comprised the nonreversers. Using analysis of variance, a significant difference was found between Gates MacGinitie mean raw scores of symbol reversers (mean = 22.53) and nonreversers (mean = 27.92). the practical difference between the scores of the two groups is questioned.

Zola, David. Redundancy and word perception during reading. *Perception & Psychophysics*, September 1984, *36*, 277-284.

Tests the hypothesis that verbal context influences the perception of words during reading. Subjects were 20 undergraduates who read a series of paragraphs while their eye movements were monitored and recorded. Two versions of each experimental paragraph were constructed, one containing a highly constrained adjective where the word following would be highly predictable, and one containing a different adjective. The two versions differed by only the one word. Specific misspellings were introduced into some paragraphs, with gradations of misspelling determined according to a precise algorithm. Subjects were asked to read the passages silently and be prepared to answer comprehension questions about them. Subjects were told that errors were present, but that they should ignore them. After an initial group of 12 paragraphs was presented to acquaint the subjects with the task, experimental paragraphs were presented in groups of six. After each group, subjects completed five comprehension questions. Each subject read 10 paragraphs under each condition in a within-subject randomization design for a total of 100 experimental paragraphs. Targeted nouns were fixated as frequently when constraints were high as when they were low. The fixation of targeted words was shorter in the highly constrained condition. Minimal spelling errors often disrupted reading, increasing fixation frequency and duration. With gross spelling deviations, saccadic lengths changed, with a significant foreshortening of forward eye movements.

Underwood, N.R., & McConkie, G.W. Perceptual span for letter distinctions during reading. *Reading Research Quarterly*, Winter 1985, *20*, 153-162.

Obtains data on the size of the perceptual span within which adults use and obtain information concerning the letters of the text. The 15 college students serving as subjects were presented text on a Cathode-Ray Tube (CRT) while eye movements were monitored. On selected fixations, letters in certain regions of the display were replaced by visually dissimilar letters from the same set: ascenders, descenders, and those which neither ascend above or descend below other letters. Eight letter replacement regions were used, four to the left of the fixated letter, and four to the right. Texts consisted of 16 passages from newspaper articles, each 20 lines long with up to 72 characters per line. Five comprehension questions followed each passage. Fixations following the fourth and seventh saccadic movements on a line were designated as critical (those on which the replacement occurred). Erroneous letters lying four or more letter positions to the left of the fixated letter, or eight or more to the right, had no discernible effect on reading.

Kováč, Damian. Perceptual and mnemonic functions: A psychological paradigm. In Viktor Sarris & Allen Parducci (Eds.) *Perspectives in Psychological Experimentation: Toward the Year 2000.* Hillsdale, NJ: Lawrence Erlbaum Associates, 1984, 127-134.

Describes some of the recent research on word and visual discrimination conducted in "The Slovak Experimental School of Psychology." Argues that perception acts as a mental regulator of the response components of behavior by which man maintains contact between outside environment and inner conditions.

Underwood, Geoffrey. Attention and word recognition in skilled reading. In Karl Tuunainen & Alain Chiaroni (Eds.) *Full Participation. Proceedings of the Second European Conference on Reading, Joensuu, 2-5 August 1981, Finland.* Joensuu, Finland: University of Joensuu, 1982, 360-372.

Gives results of two experiments attempting to determine some of the subskills which are automatic in adult skilled readers. In Experiment 1, 12 undergraduates were presented with 12 pictures, each presented in each of five experimental conditions: 1) picture alone, 2) picture accompanied by an unpronounceable letter string, 3) picture accompanied by a pronounceable but meaningless letter string, 4) picture accompanied by a real word which was not associated with it, and 5) picture accompanied by a word which was a semantic associate (picture of cat with the word "cream"). Subjects were asked to attend only to the picture and ignore anything else. Presence of a semantically related word slowed down picture naming time. In Experiment 2, 14 undergraduates were presented with a letter string to fixation accompanied by an unattended letter string to the right of fixation. The attended stimulus was a word on half the trials and a nonword on half the trials. All nonwords were pseudophomophones. When the attended stimulus was a word, the accompanying unattended stimulus was a word half the time and a nonword on the other trials. Unattended words were presented in one of five experimental conditions similar to those listed in Experiment 1. When the unattended word was a related nonhomophonic word, response time was slower than when the nonhomophone was unrelated. When the unattended word was a homophone which was related to the attended word, the response to the attended word was slower in comparison with the effect of an unrelated homophone; when the unattended word was a heterographic homophone of a related word, the response was found to be slower than when it was an unrelated homophone.

Abramovici, Shimon. Errors in proofreading: Evidence for syntactic control of letter processing? *Memory and Cognition*, May 1983, *11*, 258-261.

Compares rates of detection of misspellings in lexical versus auxiliary verbs for 199 children, ages 10-10 to 12-3, and 93 adults. Twenty-four versions of a 1,000-word story were prepared, each containing 37 errors. In one set of 12 versions, misspellings appeared in auxiliary verbs, and in the other 12 versions, in the same words but used as lexical verbs. Additionally, filler errors appeared in 18 words not related to the hypothesis of the study. In each set of 12, errors in target words in six versions preserved the shape of the words and in six versions changed word shape. Errors also were ordered to appear at the beginning, center, and end of words. A 10-item multiple-choice comprehension test was also given. Comprehension test means for both children and adults were essentially identical. Errors in lexical verbs were more readily detected than in auxiliary. No consistent evidence was found for the effects of shape. No evidence was found that the position of the error impacted on error detection rate.

Chastain, Garvin. Phonological recoding in letter detection. *The Journal of General Psychology*, January 1985, *112*, 101-107.

Presents 16 undergraduate psychology students with eight quadrigrams containing the letter "D" and eight counterpart quadrigrams differing in spelling only in the target letter. Subjects were to identify whether each briefly presented quadrigram contained the target in the initial or final position. Four sets of four quadrigrams were used, with one pair in each set being phonologically similar and graphemically identical except at the target position (dole, cole), and the other pair being phonologically dissimilar but graphemically identical except at the target position (done, cone). The letter at the opposite end of the string from the target position and the letter beside the target position were held constant within each letter set. Performance was better on phonologically dissimilar pairs in all four sets. Findings are interpreted as suggesting that visually presented orthographic letter strings produce phonological codes from which entries in the mental lexicon are accessed. Entries then provide feedback to enhance the perceptibility of the component letters.

Williams, Mary C.; Gaffney, James B.; & Solman, Robert T. The word-superiority effect under conditions that approximate reading. *Brain and Language*, May 1985, *25*, 160-166.

Investigates the effect of transient versus sustained presentations of word and nonword contexts on the detection of letters. Eight undergraduates were asked to identify a target letter presented in a word, in a pronounceable nonword, or in an unpronounceable nonword. In the transient condition, the target and context were flashed for 10 msec., with onsets and offsets coinciding. In the sustained condition, the target was flashed for 10 msec. in the middle of a sustained (2-sec.) presentation of the context. The onset of the target occurred 1 sec. after the onset of the context. In the transient condition, letters were detected more accurately when presented within the context of words than in nonwords. Letters were not detected more accurately in words than when presented alone. In the sustained condition, both word-superiority and word-letter effects were obtained. The authors argue that context information is used differently in the transient and sustained presentation conditions, with the latter more closely approximating a natural reading condition. In the sustained condition, the facilitative effect of word context is enhanced.

Bayliss, Janet, & Livesey, P.J. Cognitive strategies of children with reading disability and normal readers in visual sequential memory. *Journal of Learning Disabilities*, June/July 1985, *18*, 326-332.

Addresses, in two experiments, differences in the cognitive strategies used by two subgroups of dyslexics and by normal readers in their performances on visual sequential memory tasks. Subjects were 21 reading disabled boys and 11 normal readers in Western Australia. Reading disabled boys were classified as dysphonetics and dyseidetics on the basis of the percentage of phonetic-equivalent spelling errors made. In Experiment 1, three visual sequential memory tasks were administered: 1) easy to label (EL), 2) hard to label (HL), and 3) same name different picture (SNDP). Number of correct recognitions was recorded for each of the 24-item tests. It was found that both groups of dyslexics could process and remember visually presented information as well as normal readers provided the nature of a stimulus was congruent with a preferred cognitive strategy (holistic or analytic). Experiment 2 attempted to assess the cognitive strategy employed by the three groups of readers. In memory for order tasks incorporating both spatial and serial formats, dysphonetics chose spatial order over serial order whereas dyseidetics' preferences were the opposite. When required to recognize both spatial order and serial order, dysphonetics made more correct spatial order responses than did dyseidetics; the reverse was true for correct serial order responses. Normal readers revealed strong strategy preferences and little flexibility in switching strategies. Dyslexics performed as well as normal readers on these tasks.

IV-7 Auditory perception and reading

Harber, Jean R. Auditory perception and reading: A closer look. *The Exceptional Child*, July 1981, *28*, 98-113.

Revies research on the relation of reading and auditory perceptual skills with an emphasis on sound blending and closure. Also reports the results of two experiments conducted with learning disabled children to explore further the relation of sound blending and closure with reading performance. In tabular form the author summarizes 24 sound blending studies and 6 auditory closure studies. The author concludes the blending studies that there is a relation between reading and blending, but perhaps less than often thought because so few studies control for IQ. She concludes from her review of the closure studies that the relation of reading and closure is inconclusive. The author's first study examines the relation between blending and closure and three different measures of reading performance. The age range of the 76 learning disabled subjects was 6-0 to 10-0, with an average of 8-5 and their average IQ score was 94. The tests administered to each subject were: two subtests of the ITPA, Auditory Closure and Sound Blending; and the Word Analysis, Oral Reading, and Silent Reading subtests of the *Durrell Analysis of Reading Difficulty.* With IQ and CA partialed out, the correlation coefficients between blending and the three reading subtests ranged from .09 to .28; the coefficients for closure and reading ranged from .29 to .35. A second study was conducted in exactly the same manner as Study 1, except the age range of the 75 subjects was 6-0 to 11-0. Subjects were also grouped as high, middle, and low readers based upon composite score on the Durrell. The correlation coefficients between closure and composite reading, with IQ and CA partialed out, ranged from .92 for the lowest readers to .47 for the high readers.

SIMPSON, ROBERT G.; HAYNES, MAUREEN D.; & HAYNES, WILLIAM O. The relationship between performance on the Wepman Auditory Discrimination Test and reading achievement among adolescents. *Educational and Psychological Measurement*, Summer 1984, *44*, 353-358.

Investigates the relation between auditory discrimination, as assessed by the *Wepman Auditory Discrimination Test*, and reading achievement as derived from the *Woodcock Reading Mastery Test*. Subjects were 136 adolescents, ages 12-2 to 17-9 years; included were 87 males and 49 females, 94 being white and 42 black. All had been referred to a regional diagnostic and evaluation center for academic, vocational and psychological evaluation. Mean IQ was 80 with a range from 49 to 109 on the WISC-R or the WAIS. Controlling for intelligence, partial correlation coefficients were calculated for the total sample and for subsamples determined according to sex, race, and age. Partial correlation coefficients for the total sample ranged from -.05 to .18 and were consistently low across sex, race, and age.

BRADY, SUSAN; SHANKWEILER, DONALD; & MANN, VIRGINIA. Speech perception and memory coding in relation to reading ability. *Journal of Experimental Child Psychology*, April 1983, *35*, 345-367.

Reports three experiments utilizing good and poor readers at grade three and aimed at exploring whether differences on memory tasks are associated with differences in speech perception. The 15 good and 15 poor readers had *Peabody Picture Vocabulary Test* scores between 90 and 120. Mean reading grade scores on the Word Attack and Word Recognition subtests of the *Woodstock Reading Mastery Tests* was 5.88 for good readers and 2.76 for poor readers. In the first experiment, subjects listened to strings of rhyming and nonrhyming words and were asked to repeat the words. Poor readers recalled fewer items and were less affected by the rhyming/nonrhyming characteristics of the words. In Experiment 2, children listened to lists of high- and low-frequency words in a noise-masked and unmasked condition and were to repeat the words. The addition of noise made it significantly more difficult for the poor readers to perceive the stimuli than for the good readers. There was no interaction between word frequency and reading group, nor was there an interaction between the error position effect and reading group. For both groups, the greatest number of errors occurred in the initial position. In the third experiment, pupils listened to a tape of environmental sounds, first with noise and then in quiet. No differences were found between the two ability groups on this task.

TOBEY, EMILY, A., & CULLEN, JR., JOHN K. Temporal integration of tone glides by children with auditory-memory and reading problems. *Journal of Speech and Hearing Research*, December 1984, *27*, 527-533.

Examines the temporal auditory integration performance of two groups of children matched for age, sex, and socioeconomic factors. The 14 experimental subjects demonstrated auditory-memory and reading deficits; the 14 controls did not. The age range was from 9 to 17. A fixed-frequency tone signal, a tone glide rising in frequency, and a tone glide falling in frequency were used. No significant differences were found between the experimental and control groups' thresholds as a function of signal class (fixed frequency or glide tones) or duration. Falling glide tones were detected at higher intensities than were rising glide tones.

LEAN, DEBRA S., & ARBUCKLE, TANNIS Y. Phonological coding in prereaders. *Journal of Educational Psychology*, December 1984, *76*, 1282-1290.

Examines the development of phonological coding abilities in preschool children. Two groups of 40 children each served as subjects at the first testing, one group 60 months of age or over and one group under 60 months of age. Fourteen months later, 27 children of the younger group were retested. Stimuli consisted of 12 sets of four cards each. Six sets were composed of rhyming letters, 6 of nonrhyming letters. Half the children in each group were assigned to an oral free-recall task, and half to a serial reconstruction task. Within each task, children were assigned to either an immediate- or delayed-recall condition. A large phonetic similarity effect was found in both age groups and in both oral free recall and serial reconstruction. Neither cross-sectional nor longitudinal comparisons showed evidence of a developmental change in the magnitude of the phonetic similarity task. The results suggested that preschoolers use a phonetic code at an early stage and that item and order memory are sensitive to the use of a phonetic strategy.

GERSTEN, RUSSELL, & CARNINE, DOUG. Auditory-perceptual skills and reading: A response to Kavale's meta-analysis. *Remedial and Special Education*, January/February 1984, *5*(1), 16-19.

Responds to a published meta-analysis of 106 studies correlating performance on tests of auditory-perceptual skills with performance on reading tests. Among the findings were that a significant reliable mean correlation exists between auditory-perceptual skills and reading skills (r = .358, with a median of .328). The study indicated that approximately 13% of the variance in reading ability is accounted for by auditory skills, and that auditory-perceptual skills comprise a separate orthogonal factor from general reading achievement. These authors review that work, pointing out both the weakness of the correlations and that the correlation between perceptual skills and reading is consistently weaker than correlations found between math computation and reading scores. They indicate that the auditory skill with the largest correlation (r = .514) with reading (Sound Blending) is in fact taught in many phonic-based readers. Finally, the authors question the multiple regression used in the meta-analysis, indicating that the contribution of each variable is not tested for statistical significance. They contend that many of the correlations would not be significant at a .05 level and are merely chance findings.

IV-8 Reading and language abilities

HORN, THOMAS D. The role of bilingualism in reading difficulties. *Journal of Research and Development in Education*, Summer 1981, *14*(4), 58-66.

Discusses and reviews selected research on three topics related to the role of Spanish/English bilingualism in reading difficulties: categories and variations in bilingualism, misinterpretation or misuses of standardized tests results, and diagnostic-prescriptive issues. The author finds and reports that there are many, perhaps eight, varieties or degrees of bilingualism. He also demonstrates that there is wide variation in the reading abilities of bilinguals on an informal reading inventory when compared to reading achievement on a standardized achievement test. Concludes that the term bilingualism should not be viewed only as a factor that adversely affects reading, but must be considered in conjunction with factors such as SES, the student's knowledge of literacy, and the degree of bilingualism.

MCLAUGHLIN, BARRY. Second-language learning and bilingualism in children and adults. In Sheldon Rosenberg (Ed.) *Handbook of Applied Psycholinguistics: Major Thrusts of Research and Theory.* Hillsdale, NJ: Lawrence Erlbaum Associates, 1982, 217-256.

Reviews comprehensive research on second language learning and bilingualism. Topics reviewed include definitions, processes of second-language learning, the development of a second language, intervention programs, and bilingual competence. Concludes the paper by describing those areas currently receiving most attention from researchers.

Ng, Seok M. Reading acquisition in Singapore. In Byong Won Kim (Ed.) *Reading English in Asia.* The First Yearbook of Literacy and Languages In Asia. Seoul, Korea: Literacy and Languages in Asia, 1984, 63-77.

Reports the results of a three-year survey of the reading and language skills of 622 Primary 1, 2, and 3 pupils in Singapore. All students in Singapore are taught to read in English, though their native tongue may be Chinese, Malay, or Tamil. A large variety of standardized and informal measures of reading, oral reading, decoding, and writing were administered. Finds that over one quarter of the pupils are reading classroom texts that are at their frustration level. Decoding, oral language, and writing were significantly correlated with reading comprehension.

Kim, Byong Won. Linguistic theories and L2 reading. In Byong Won Kim (Ed.) *Reading English in Asia.* The First Yearbook of Literacy and Languages In Asia. Seoul, Korea: Literacy and Languages in Asia, 1984, 3-39.

Reviews three theories of language and applies them to learning to read a second language (L2). Also reports some longitudinal, naturalistic oral language data produced by the author's children. The three theories discussed in detail are structuralist, transformationalist and ideational. Concludes after the review that the first two theories do not realistically explain L2 reading and that the ideational theory is more realistic. The naturalistic data were collected over a period of three years commencing with the arrival of the children in the US and their introduction to English. The children were 5, 7, and 11. The author taped their English responses to pictures and reading and their free talking. Approximately 10,500 minutes of such monologues were tape recorded over a period of three years. Concludes from the lengthy description and analysis that written language is not secondary to speech in second language learning and that words and sentences should be dealt with only within meaningful and formally unified text.

Carrell, Patricia L. Some issues in studying the role of schemata, or background knowledge, in second language comprehension. *Reading in a Foreign Language,* October 1983, *1,* 81-92.

Raises two issues connected with schema theory research and noted in both first- and second-language English as a Second Language research. The first issue involves the distinction frequently drawn between content and formal schemata; the second issue, the extent to which schemata are culture-specific or cross-cultural. Research relating to both issues is cited. Relative to the first issue, it is noted that both formal and content schemata may affect comprehension in English as a second language or in an individual's native language. However, the interactive effect of the two on comprehension is unknown. Relative to the second issue, the complexity is identified. Subgroup and individual differences occur among content schemata.

Brown, Tracy L., & Haynes, Margot. Literacy background and reading development in a second language. In Thomas H. Carr (Ed.) *The Development of Reading Skills.* San Francisco: Jossey-Bass, Inc., 1985, 19-34.

Reviews briefly second language reading research and critiques it for lacking a methodologically sound and coherent conceptual framework and for failing to distinguish between important literacy background variables. The authors' research focusing on differences in visual and orthographic processing among Japanese, Arabic, and Spanish-speaking students is reported. Differences among these groups appears to be related to and consistent with the varying educational and literacy backgrounds of the groups. The findings suggest that generalizations across language backgrounds may often be unwarranted.

WEISSBERG, ROBERT C. Given and new: Paragraph development models from scientific English. *TESOL Quarterly*, September 1984, *18*, 484-500.

Analyzes 60 paragraphs to note the frequency of occurrence of three patterns of topic development in research reports in agriculture, biology, and engineering. Paragraphs were classified in terms of information structure as manifested through intersentential linkages within the text. The patterns were identified as linear, constant topic, hypertheme, and mixed. The patterns all conform to given/new in that given information is fronted in the topic, and new information occurs towards the end of the sentence. In all, 48 of the paragraphs demonstrated one of the three patterns or a mixed pattern with the linear pattern most common. Applications to English as a Second Language instruction are developed.

ROSENTHAL, ALVIN S.; BAKER, KEITH; & GINSBURG, ALAN. The effect of language background on achievement level and learning among elementary school students. *Sociology of Education*, October 1983, *56*, 157-169.

Investigates the relation of language background and achievement when other home background factors are controlled. Data were analyzed from a household survey conducted as part of an earlier study. Of the original nationally stratified cluster of 81,000 students in grades one through six, representing 240 schools, a sample was drawn that included all students from Spanish-speaking homes and all students from English-speaking homes. The resulting number of subjects was 12,322 for whom parent interview data were available. Achievement level for each subject was designated as the fall score on the *Comprehensive Test of Basic Skills* (CTBS) in the first year of the study. Learning was determined by the spring minus the fall CTBS score for reading and math. Home background variables used in the analysis included socioeconomic status (SES) and race/ethnicity. Results of regression analysis indicated that home background is more important than language, but language still has a large effect (just under 50% of the original difference and about .5 standard deviation). For reading learning, the effect of language is small, but can be identified (about .15 standard deviation). Results for math achievement and learning showed less effect for language than did reading.

CARRICK, WILLIAM E. The effect of social dialect on reading comprehension at the community college level. In Delryn R. Fleming (Ed.) *Proceedings of the Sixteenth Annual Conference of the Western College Reading and Learning Association*, Vol. 16. Whittier, CA: Western College Reading and Learning Association, 1983, 21-25.

Studies the effect of black dialect on reading comprehension. Subjects were 36 black community college students. Dialect was determined by a test called the *Social Dialect Feature Inventory*. For 18 of the subjects, their major dialect was black English (BE); for the other 18, their major dialect was Standard English (SE). Subjects read a teacher-made reading test developed to include items that were dialect specific to BE and items that would be common to both BE and SE. The nature of the test and the validity of the difference in BE and SE items were not reported. Students who spoke BE scored significantly lower than students who spoke SE on the SE items. The author reports that there was no significant difference between the two groups on the items common to both dialects as the F statistic was not significant at the .01 level. The statistic was significant at the .05 level, however.

Stark, Rachel E.; Bernstein, Lynne E.; Condino, Rosemary; Bender, Michael; Tallal, Paula; & Catts III, Hugh. Four-year follow-up study of language impaired children. In Rosemary F. Bowler (Ed.) *Annals of Dyslexia*, Vol. 34. Baltimore, MD: The Orton Dyslexia Society, 1984, 49-68.

Conducts a follow-up study on 14 normal and 29 specifically language impaired (SLI) children. The children were originally evaluated as part of a larger study in 1980 and were reevaluated three to four years later. At the time of the follow-up, the children ranged in age from 8 to 12. A battery of tests was administered, including: the WISC-R, the *Peabody Picture Vocabulary Test*, the *Boston Naming Test*, the ITPA, the *Northwestern Syntax Screening Test*, and the *Gates-MacGinitie Reading Test*. The average IQ of the SLI group was 94. Both normal and SLI children continued to develop skills in receptive and expressive language and speech articulation over the years, but the SLI children's language skills were continuing to develop at a slower than normal rate. At the follow-up testing, 80% were still language impaired. The average reading score of the SLI group was two years below grade level.

Blachman, Benita A. Relationship of rapid naming ability and language analysis skills to kindergarten and first-grade reading achievement. *Journal of Educational Psychology*, August 1984, 76, 601-622.

Investigates the relation between two types of reading-related language measures to reading test scores in kindergarten and first-grade children. Subjects were 34 kindergarten and 34 first graders, attending all-black inner-city schools. Children were tested on the following skills: 1) rapid naming of objects, colors, and letters; 2) ability to segment words into syllables by a tapping task; and 3) rhyme production. The *McCarthy Scales of Children's Abilities* was used to determine general intellectual abilities. The *Metropolitan Readiness Test* was administered to kindergarten children at the end of the school year. Both groups were given the reading section of the *Wide Range Achievement Test*, and first graders also were given the reading sections of the *Gallistel-Ellis Test of Coding Skills*. Rapid naming tasks were unrelated to the language analysis tasks on 12 of 13 correlations between these measures. Rapid naming of colors was significantly related to five of the six measures of kindergarten reading achievement. At first grade, rapid naming of letters and phoneme segmentation were found to be significantly related to the three measures of reading achievement used. Children who were fastest on the letter naming task tended to be among the better readers at the end of grade one.

Miller-Jones, Cynthia. Untangling the correlational relationship between language and reading acquisition. *Remedial and Special Education*, May/June 1984, 5(3), 50-59.

Studies the relation between language development and reading acquisition for 118 5- to 7-year-olds. Children were tested in the fall and spring on comprehension of 13 language structures; a series of Piagetian tasks involving order, seriation, multiple classification, class inclusion, and orientation; and an unnamed reading test. Multiple regression, path analysis, and cross-lagged time panel analysis were used in the analyses. Logico-perceptual development (Piagetian tasks) was causally related to success in reading acquisition. Language structures related to reading were studied and correlated with the logico-perceptual subtest. Similarities between the problem-solving strategies required for the Piagetian tasks and comprehension of certain language structures were noted. The author concluded that strategies demonstrated in the logico-perceptual tasks may play a fundamental role in the correct interpretation of certain language structures.

Edmiaston, Rebecca K. Oral language and reading: How are they related for third graders? *Remedial and Special Education* July/August 1984, *5*(4), 33-37.

Investigates the relationship between oral language and reading comprehension of 77 third graders as measured by the *Test of Language Development* (TOLD) and the *Test of Reading Comprehension* (TORC). The TOLD was individually administered, while the TORC was group administered on two separate testing days. Pearson product-moment coefficients were computed between subtest and total scores of both tests. Results indicated moderate to strong statistically significant relationships between specific linguistic components of oral language and reading comprehension. Moderate to strong relationships also occurred between expressive and receptive oral language performance and reading comprehension.

Blachowicz, Camille. Children's linguistic insight: What we think we know. *Reading Horizons*, Spring 1984, *24*, 202-207.

Highlights some of the research into children's linguistic insights as they relate to reading. Points out several caveats in implementing research findings in this area. Argues for the development of more ecologically valid and sensitive techniques for collecting information about children's linguistic knowledge.

Cox, Beverly, & Sulzby, Elizabeth. Evidence of planning in dialogue and monologue by five-year-old emergent readers. In Jerome A. Niles & Larry A. Harris (Eds.) *New Inquiries in Reading Research and Instruction.* Thirty-first Yearbook of The National Reading Conference. Rochester: The National Reading Conference, 1982, 124-130.

Compares instances of conversation and storytelling from case studies of three kindergarten children judged to be high, moderate, and low in emergent reading ability. Samples (n = 92) of dialogue and monologue produced by each of the three children over a school year were examined for effectiveness in maintaining each form and for intrusions of inner speech. Two independent judges ranked the subjects' dialogue in terms of effective use of turn-taking, specification of referents, and event sequence, and their monologue in terms of unit autonomy and decontextualization. Intrusions of inner speech were categorized as 'planning' or 'other.' The child ranked highest in emergent reading ability (A) was also ranked highest in dialogue performance, and jointly highest in monologue performance. The middle ranked child in terms of emergent reading ability (B) ranked joint first in monologue performance, but last in dialogue. Child A also demonstrated a predominant use of inner speech for planning, while the lowest ranked child in terms of emergent reading ability used inner speech equally for planning and other purposes.

Ishikawa, Kiyoharu. A study of the relationship between reading ability and oral language skills. *The Science of Reading*, December 1983, *27*, 156-160.

Studies the relation between reading ability and oral communication skills of kindergarten children in Okinawa. The *Yoji-Jido Dokushoryoku Test* was used to assess language ability and an investigator developed scale assessed oral communication skills. Scores were used to divide children into high, middle, and low language-ability groups. A factor analysis on the items differentiating the ability groups revealed two factors for boys and three for girls. One factor common to both was composed of characteristics related to oral communication and bore a large influence on reading ability. Pupils in the low-ability group used more simple sentences and one-word expressions; high ability pupils used more complex sentences.

Muncer, Steven J., & Bever, Thomas G. Sensitivity to propositional units in good reading. *Journal of Psycholinguistic Research*, July 1984, *13*, 275-279.

Tests visual attention to print at the end of clauses by 29 good and 31 poor reading college undergraduates. Subjects were asked to make a slash through all the /e/s as they read a set of sentences for comprehension. A critical word with a silent /e/ was placed at the end or beginning of a clause in six pairs of sentences. For half the students, the task was timed; for the other half, untimed. Subjects were designated as good or poor readers on the basis of the median score on the comprehension test over the sentences. Good readers showed an effect of clause position on the detection of final /e/s, while poor readers did not. Good readers missed 41% of /e/s at the end of clauses, and only 17% at the beginning of clauses. The authors conclude that there is a direct effect of linguistic organization in reading which reduces visual attention to the print at the end of a clause. Thus good readers use strategies which are sensitive to the propositional structures of language in the same way they do the auditory strategies of speech comprehension.

Fang, Sheng-Ping; Tzeng, Ovid J.L.; & Alva, Liz. Intralanguage vs. interlanguage Stroop effects in two types of writing systems. *Memory and Cognition,* November 1981, *9,* 609-617.

Explores the relation between word processing strategy and orthographic structure of written language. Three experiments were conducted using Chinese-English, Spanish-English, and Japanese-English bilinguals, respectively. All subjects performed a modified Stroop color-naming task in which the stimulus and the response language were either the same or different. The Stroop effect was greater when the stimulus and response language were different than when they were the same. When the magnitude of the reduction of Stroop interference from the same language to the different language conditions was compared across all groups, a significant inverse relation was found between the size of the reduction and the degree of similarity between the orthographic structures of the two written languages. Concludes that reading logographic and reading phonetic symbols entails different processing mechanisms.

Sampson, Michael R. A comparison of the complexity of children's dictation and instructional reading materials. In Jerome A. Niles & Larry A. Harris (Eds.) *New Inquiries in Reading Research and Instruction.* Thirty-first Yearbook of The National Reading Conference. Rochester: The National Reading Conference, 1982, 177-179.

Examines the relation between the language level of first-grade children and the language level of selected preprimers used for beginning reading instruction. Subjects ($n = 50$), who were randomly selected from 15 classrooms, dictated stories to which no grammatical or structural corrections were made. The second preprimer from seven basal reading series was selected for analysis. Two were representative of a phonics approach to teaching reading, four of a skills approach, and one of a whole language approach. Dictated stories and preprimers were analyzed for language complexity according to a formula developed by another researcher. One of the phonics preprimers was simpler than pupils' vocabulary and language patterns ($p < .001$), and one was more complex ($p < .05$). Two of the four skills model books were also simpler than the children's dictated stories ($p < .05$).

Lehnert, Linda, & Johnson, Barbara. Comparisons of young children's syntax to the syntax of their basal readers. *Reading Psychology,* 1984, *5*(1-2), 17-30.

Seeks to determine if the syntax of three published basal series is similar to the syntax of children's oral language and whether there is a gradual increase in syntactic complexity within each basal reader. Ten 250-word passages selected rom the beginning, middle, and end of first, second, and third grade basals were analyzed to determine the average number of words per T-unit. Comparisons were then made between basal syntax and the longitudinal data for high, low, and random subgroups from an earlier study of language growth. Results indicated that in average number of words per T-unit, complexity of basal passages generally exceeds that of children's oral language. Although this was not always true for children high in language proficiency, it was true for randomly grouped pupils and children low in language proficiency. In addition, none of the basal passages analyzed exhibited a graduated increase in average number of words per T-unit within series.

Johnston, Carol; Prior, Margot; & Hay, David. Prediction of reading disability in twin boys. *Developmental Medicine & Child Neurology*, October 1984, *26*, 588-595.

Posits a high incidence of reading disability among twins and that the problem can be predicted by presence or absence of language problems in the early years. Eighteen pairs of twin boys, ages 9 to 13, were identified from a longitudinal study of twins. Most were from middle-class/professional backgrounds. Preschool language status was obtained by parental responses concerning early language development. WISC-R Performance IQ was used as a measure of ability and the *Neale Analysis of Reading Ability* was administered to obtain reading age. Other data were obtained from records collected in the longitudinal study. A high incidence of problems in accuracy on the Neale were found and a less pronounced incidence of problems in comprehension. Step-wise multiple regression analyses revealed that preschool language status was the single significant predictor variable in accounting for the variance in both accuracy reading-age discrepancy (33%) and comprehension reading-age discrepancy (23%). All of the children who had three or more language problems in preschool years had problems with reading accuracy.

Fletcher, Jack M.; Satz, Paul; & Scholes, Robert J. Developmental changes in the linguistic performance correlates of reading achievement. *Brain and Language*, May 1981, *13*, 78-90.

Evaluates the developmental differences in certain linguistic skills of good and poor readers at ages 5.5, 8.5, and 11. Reading ability was ascertained by scores from the *Iowa Word Recognition Test*, the *Wide Range Achievement Test*, and teacher evaluations. Children in the older two groups were screened for intelligence with the *Peabody Picture Vocabulary Test* (PPVT). There were significant differences between the good and poor readers on the PPVT and also on SES. The linguistic tests administered were intended to assess language skills that vary in terms of the age at which they usually develop in children. The tests administered were a measure of verbal fluency (*Verbal Fluency*), two tests of morphological ability (the *ITPA Grammatic Closure* subtest and the *Berry-Talbot Test*), and a measure of syntactic comprehension (the *Double-Object Comprehension Test* [DOCT]). On all four tests, main effect differences were significant for good and poor readers and for age. However, there were significant age by reading group interactions for only *Verbal Fluency* and DOCT, and in both cases the only significant difference between reading groups was at age 11.

Ganschow, Leonore. Analysis of written language of a language learning disabled (dyslexic) college student and instructional implications. In Rosemary F. Bowler (Ed.) *Annals of Dyslexia*, Vol. 34. Baltimore, MD: The Orton Dyslexia Society, 1984, 271-284.

Reports a case study of one college sophomore at a small midwestern university. His overall *Woodcock Reading Mastery Test* score as a freshman in college was 8.6; spelling score on the *Wide Range Achievement Test* was 4.1; reading rate was 142 words per minute; performance on the *Boder Test of Screening Reading-Spelling Patterns* was typical of "dyseidetic readers." The data collected were first drafts of eight writing samples from a six-week period, the samples averaging 318 words. They were analysed for syntactic complexity by counting T-units. Organization and grammatical, spelling, and semantic errors were also tabulated. The student averaged 9% spelling errors per paper and 17 grammatical errors per essay. His sentence syntax was found comparable to nondyslexic writers and his primary semantic errors were inappropriate word choices, incorrect determiners, and overuse of "so" as a transition. His major problem with organization was difficulty with expanding an idea beyond saying the same thing in a different manner. Six instructional strategies to help college students in their writing are suggested.

HOOVER, NORA L. Young children's detection of incoherence in narratives. In Jerome A. Niles & Larry A. Harris (Eds.) *New Inquiries in Reading Research and Instruction.* Thirty-first Yearbook of The National Reading Conference. Rochester: The National Reading Conference, 1982, 269-273.

Investigates young children's ability to detect disruptions in the sequence of stories, and the effect upon reading achievement. Subjects were from a preschool (n = 24), kindergarten (n = 44), and first grade classroom (n = 44). Children were read two stories, one in the fall and one in the spring. Each time the story was read six times, three normal versions and three with structural variations. Subjects were asked to identify the mixed up stories. First grade subjects were also administered the *Gates-MacGinitie Reading Tests.* More mixed up stories were identified in the spring than in the fall by kindergarten ($p < .02$) and first grade subjects ($p < .006$). First graders were better at the task than the other groups ($p < .05$). Results indicated that some variance in total reading growth was attributable to the ability measured in this procedure ($p < .08$).

IV-9 Vocabulary and word identification

VELLUTINO, FRANK R. Theoretical issues in the study of word recognition: The unit of perception controversy reexamined. In Sheldon Rosenberg (Ed.) *Handbook of Applied Psycholinguistics: Major Thrusts of Research and Theory.* Hillsdale, NJ: Lawrence Erlbaum Associates, 1982, 33-197.

Provides a comprehensive and critical review of research and theory on word recognition with an especial emphasis on the unit of perception. The exposition is divided into four sections. The first presents a brief description of the major concepts and schematics employed in the word recognition models to be discussed. The second section defines the unit of perception issue and presents a chronology and a detailed description of opposing viewpoints. The third section reviews research related to the influence of contextual factors on word recognition, with a focus on methodological differences and in studies yielding conflicting results. Maintains that skilled reading represents the end product of a protracted developmental progression characterized by a gradual transition from constrained to flexible modes of visual analysis. The converse of this theme is that unskilled reading implies inflexible and idiosyncratic modes of analysis, and research contrasting processing strategies in skilled and unskilled readers is presented. The final section summarizes the paper and argues for a model of word perception with greater ecological validity.

FRAISSE, PAUL. Perceptual processings of words and drawings. In Viktor Sarris & Allen Parducci (Eds.) *Perspectives in Psychological Experimentation: Toward the Year 2000.* Hillsdale, NJ: Lawrence Erlbaum Associates, 1984, 151-163.

Presents a synthesis of the author's own research on the different processes involved in naming words or pictures. Reviews 19 of the author's previous studies of iconic storage, encoding storage, and the organization of responses.

Blachowicz, Camille L.Z. Vocabulary development and reading: From research to instruction. *The Reading Teacher,* May 1985, *38,* 876-881.

Reviews research on vocabulary development and instruction in terms of theoretical explanations and important factors. Areas covered include the theoretical base, the learner centered explanation, the importance of words to be learned, the duration of vocabulary development, and motivation. Implications are drawn for instruction.

Omanson, Richard C. Knowing words and understanding texts. In Thomas H. Carr (Ed.) *The Development of Reading Skills.* San Francisco: Jossey-Bass, Inc., 1985, 35-53.

Reviews and discusses selected research on the questions of how children's comprehension processes may be affected by variations in word knowledge and on whether the effects of word knowledge on comprehension are similar for skilled and less skilled readers.

Graves, Michael F.; Brunetti, Gerald J.; & Slater, Wayne H. The reading vocabularies of primary grade children of varying geographic and social backgrounds. In Jerome A. Niles & Larry A. Harris (Eds.) *New Inquiries in Reading Research and Instruction.* Thirty-first Yearbook of The National Reading Conference. Rochester: The National Reading Conference, 1982, 99-104.

Examines the ability of primary grade children from three different geographic and social backgrounds to identify and assign meanings to frequent words. Subjects were first, second, and third grade pupils from three schools (n = 69, 45, 79, respectively). School 1 was in a residential suburb of a major city, where pupils were predominantly white and middle class. School 2 had a similar population, but was located in a small town of approximately 1,000 people. School 3 was located in a mixed residential, commercial, and industrial area of a major city, where pupils were predominantly black and lower class. Subjects completed a 42-item vocabulary test, in which each item consisted of a sentence with the target word deleted and four single-word options for completion. The words selected comprised a stratified random sample taken from the 5,044 most frequent words in the *American Heritage Word Frequency Book.* The strata were seven frequency blocks constructed on the basis of the words' Standard Frequency Index. Six words were randomly selected from each block. Subjects in School 3 knew fewer words than children in the other two schools ($p < .001$). Subjects in first grade knew fewer words than pupils in grades two and three ($p < .001$). There was a main effect for frequency block ($p < .001$), with words in the lower blocks (i.e., those containing more frequently occurring words) tending to be known more often. Estimates are made of the size of children's reading vocabularies in each of the grades for Schools 1 and 2 combined, and for School 3.

Frey, Eberhard. Subjective word frequency estimates and their stylistic relevance in literature. *Poetics,* October 1981, *10,* 395-407.

Observes that much writing and research on stylistics is based upon frequency counts of linguistic variables. The author states that if frequency distributions do have an effect on style or comprehension, then competent speakers and readers of the language must have some sensitivity to these frequency distributions. To evaluate this assumption, 46 adults were surveyed. Subjects were university students, faculty, staff, and some high school students. They were given two tasks: to rank order a list of 12 words and to rank order 8 of these 12 words as they thought they might be used in each of four situations described by the researcher. Rankings of the word list by the subjects were also compared to the rankings of several word frequency counts. Though highly correlated (.90) with published frequency ratings, subjects' rankings were more reliable. There was considerable reliability also in the rank order of the words in each of the described situations and in the four words not included. Concludes that about 10 frequency gradations can be noticed by average readers and maybe twice as many gradations by educated adults.

JORM, A.F.; SHARE, D.L.; MACLEAN, R.; & MATTHEWS, R.G. Phonological recoding skills and learning to read: A longitudinal study. *Applied Psycholinguistics*, September 1984, *5*, 201-207.

Seeks evidence to support the notion that phonological recoding is important during reading acquisition. Subjects were 525 kindergarteners in nine Australian schools who were given three reading tests at the end of the kindergarten year: 1) a 20-item sight word reading test, 2) a 72-item nonsense word test for grapheme-phoneme correspondence, and 3) a scrambled word reading test based on words from the first passage of the *Neale Analysis of Reading Ability.* In addition, the *Peabody Picture Vocabulary Test* (PPVT) was administered as a measure of verbal intelligence. The 479 children still attending the schools at the end of grade 1 were readministered the scrambled word reading test and the Neale Analysis. The Neale was again given to the 452 children still available at the end of grade 2. Two groups of 28 children were then identified. One group had a score of 0 on the nonsense word test and a score of 5 or more on sight reading; the matched group had a score of 4 or more on the nonsense word reading. Pairs were matched for sex, school, PPVT score, and sight word reading. At the end of grades 1 and 2, the group scoring higher on the nonsense word test scored better on the Neale.

DYSON, ANNE HAAS. "*N* spell my Grandmama": Fostering early thinking about print. *The Reading Teacher,* December 1984, *38*, 262-271.

Reviews the literature addressing the developmental nature of literacy, descrives children's early understanding of the symbol system, and critically evaluates the nature of literacy programs for children with little apparent literacy experience. The author uses examples from her own participant-observations of young children and makes suggestions for specific isntructional strategies.

EHRI, LINNEA C., & WILCE, LEE S. Movement into reading: Is the first stage of printed word learning visual or phonetic? *Reading Research Quarterly,* Winter 1985, *20*, 163-179.

Seeks to determine whether 67 prereaders and beginning readers (males = 30; females = 26) differ in the extent to which they recall initial and final letters in a visual spellling task, as well as in a recall of phonetic spellings. All subjects were individually pretested with a letter name/sound test, the *Gray Oral Reading Test,* and a word identification test, including words from the experimental learning task. Subjects were then grouped on their ability to read words and labeled as either prereaders (no words read), novices (a few words read), or veterans (several words read). They were taught to read two kinds of word spellings: simplified phonetic spellings with letters corresponding to sounds (e.g., JRF for giraffe), and visual spellings with letters bearing no sound correspondence, but with forms that were visually distinct. Prereaders learned to read the visual spellings more easily than the phonetic spellings, while novices and veterans learned to read the phonetic spellings more easily. The researchers indicated that these results suggest that when children move into reading, they shift from visual cue processing of words to phonetic cue processing.

NEVILLE, DONALD, & WOODS, ALICE R. A comparison of the focal attention and contextual theories as they relate to the graphic similarity and the level of frequency of the words taught. *Reading Psychology,* 1984, *5*(1-2), 119-128.

Examines the effect of noun frequency, graphic similarity, and method of presentation on first graders' learning of words presented visually. A total of 160 first graders, randomly chosen from three schools and then randomly assigned to 16 groups, served as subjects. Four word lists were prepared: high frequency graphically similar nouns, high frequency graphically dissimilar nouns, low frequency similar, and low frequency dissimilar. Each word list was presented with four different procedures: word alone; word and picture; word and sentence; and word, sentence, and picture. Words were presented to children in trials until all four test words were correctly pronounced on each of two consecutive trials or until 10 trials were completed. On immediate posttesting, significantly fewer low frequency than high frequency words were learned during the instructional trials. Significantly fewer words from the graphically similar list than from the dissimilar list were learned. Method of presentation did not have an effect on the number of words learned. On a 24-hour posttest, neither frequency nor type of presentation had a significant effect on nouns remembered.

CARNEY, JOHN J.; ANDERSON, DIANA; BLACKBURN, CORY; & BLESSING, DONNA. Preteaching vocabulary and the comprehension of social studies materials by elementary school children. *Social Education*, March 1984, *48*, 195-196.

Investigates the preteaching of vocabulary terms representing important concepts on acquisition and retention of social studies material at grade five. An 18-member experimental group experienced two one-hour instructional sessions devoted to the preteaching of 12 words, followed by reading, while a 17-member control group read silently only. Twenty-four hours following the second experimental training session, both groups were asked to read the material silently and were administered a 15-item test assessing the acquisition of literal and inferential information from textual material. Fourteen days after the initial testing, all participants were retested on the same instrument. A two-factor analysis of variance with repeated measures on one factor was performed, yielding a significant effort for the treatment variable. Subjects who were pretaught key concept vocabulary scored statistically significantly higher on both immediate and long-term comprehension than did pupils who had not been exposed to the preteaching activities.

LEVIN, JOEL R.; JOHNSON, DALE D.; PITTELMAN, SUSAN D.; LEVIN, KATHY M.; SHRIBERG, LINDA K.; TOMS-BRONOWSKI, SUSAN, & HAYES, BERNARD L. A comparison of semantic- and mnemonic-based vocabulary-learning strategies. *Reading Psychology*, 1984, *5*(1-2), 1-15.

Investigates the effectiveness of three instructional strategies for the teaching of vocabulary. Subjects, who were high-achieving fourth-graders (n = 71), and lower-achieving fourth- and fifth-graders (n = 55), were randomly assigned to one of three groups. Each group was taught six unfamiliar words relating to sports and hobbies, and six familiar words relating to stores. Subjects were taught individually on two consecutive days. The three learning strategies employed were: contextual analysis, where the words were taught by having pupils look for familiar substantive clues embedded in sentence and paragraph contexts; semantic mapping, where pupils generated personally relevant "maps" for a topic to convert familiar and unfamiliar words and concepts; and a keyword method, where pupils were taught a familiar word that was phonetically similar to part of the new word, and then saw a picture in which the keyword was related to the new vocabulary item's meaning. Three tests were administered immediately following the second session, or the next day. The first was a 12-item definition recall test, the second a 12-item judgment test concerning correct usage of a target word in a sentence, and the third a 6-item sentence-completion test requiring the selection of a sentence completion from four listed alternatives. A week or six days later a 12-item definition-matching test was given, requiring the selection of the correct definition from a list. Both high- and lower-achieving groups taught by the keyword method scored higher than those taught by the other two methods on the definition recall test. Subjects in the higher-achieving group who were taught by the keyboard method scored better than those taught by the contextual analysis method on the sentence judgment and completion tests (significance levels not reported).

Baumeister, Alfred A. Age of acquisition and meaningfulness as predictors of word and availability. *The Journal of General Psychology,* January 1985, *112,* 109-112.

Obtains recognition latencies for 50 words presented to each of 20 ninth graders. Subjects had participated in a series of verbal learning studies from first grade on and had been administered vocabulary tests at six-month intervals. Comparisons were made of 20 words acquired before completion of first grade and 20 words acquired after fourth grade. Threshold values for each word were correlated with the age at which the word was acquired. Meaningfulness (number of associates given at the time threshold measures were obtained) was correlated with recognition latencies. With the variance attributed to meaningfulness removed, the partial coefficient between age-at-acquisition and recognition latencies was .11. The data suggested that meaningfulness values are a more important influence on word recognition than age-at-acquisition.

Adams, Marilyn Jager, & Huggins, A.W.F. The growth of children's sight vocabulary: A quick test with educational and theoretical implications. *Reading Research Quarterly,* Spring 1985, *20,* 262-281.

Compares the ability of good and poor readers at second- through fifth-grade to read a frequency-graduated series of irregularly-spelled words both in isolation and in context. In Experiment 1, 106 children whose Otis Lennon IQ scores fell between 100 and 125 and for whom a composite WISC IQ was between 80 and 130, were classified as good or poor readers based on comprehension scores on the *Stanford Achievement Test* and *Gates-MacGinitie Reading Tests.* Each subject was asked to read from a list of 50 irregularly spelled words with frequencies established from a list. Mean accuracy for all readers in each grade decreased as word frequency decreased. Differences in the number of words read correctly were evaluated through a 4 (grade level) x 2 (reading ability) analysis of variance. The main effects of both grade and reading ability were highly significant ($p < .001$); the interaction between ability and grade level was also significant ($p < .01$). The significant interaction was attributed to the unevenness of differences across grades. The number of correctly read words was strongly related to overall reading ability. In Experiment 2, the subjects were presented the stimulus words within sentences. Sentence context was deemed "moderate" rather than deterministic for the target word. While overall performance continued to show a strong correlation with reading stanine scores, the subjects were generally able to read more of the target words in context ($p < .001$). Inspection of the two tasks for the difference in percentage of correctly read words for each reader indicated that context cannot totally compensate for a word's unfamiliarity. In Experiments 3 and 4, 83 pupils in Grades 2 through 5 read 45 of the original words in isolation and context. Results were quantitatively superior to qualitatively similar to Experiments 1 and 2. Performance of all groups improved markedly with context, and regardless of context, older and better readers read further into the list.

Goodman, George O.; McClelland, James L.; & Gibbs, Jr., Raymond W. The role of syntactic context in word recognition. *Memory & Cognition,* November 1981, *9,* 580-586.

Examines in two studies the role of syntactic information in word recognition. There were 32 subjects in each experiment, all university students. In both experiments subjects made a word-nonword decision regarding a target string of words or nonwords. Target stimuli were preceded by a syntactically appropriate word, a semantically related word or an unrelated word. In Experiment 1, syntactic and semantic trials were assigned to separate blocks. In both conditions, lexical decision making time was reduced compared to decision time for unrelated words. The same materials and procedures were used in Experiment 2, but syntactically and semantically paired trials were either blocked separately or mixed within the same block. Both significant syntactic and significant semantic effects were observed in the blocked condition, but only the semantic effect was obtained in the mixed condition.

CARNINE, DOUGLAS; KAMEENUI, EDWARD J.; & COYLE, GAYLE. Utilization of contextual information in determining the meaning of unfamiliar words. *Reading Research Quarterly,* Winter 1984, *19*, 188-204.

Reports two studies concerned with fourth-, fifth-, and sixth-grade pupils' use of context to determine the meaning of unfamiliar words. In the first study subjects (n = 114) were administered a two-part multiple-choice vocabulary test. Each subject completed a test of 12 low-frequency words in isolation, and one of three sets of eight passages in which the words were presented in a variety of contextual forms. The meaning of the words could be obtained either from a contrast, a synonym, or by inference, and this information was either close to the unfamiliar word or 20 to 60 words from the target word. Scores on the words-in-context tests were higher than on the words-in-isolation test ($p < .001$), there were grade level differences ($p < .002$), and scores were higher when the contextual clue was near the target word than when it was far away ($p < .01$). The difference between the synonym and inference forms of context was the main contributor to the effect due to forms of contextual information ($p < .0001$). In the second study subjects (n = 37) were randomly assigned to one of three conditions: rule plus systematic practice, systematic practice, and no intervention. In the first condition pupils were taught how to use a rule to identify the meaning of a word in context, and given practice in doing so, while in the second condition the rule was not verbalized but the practice was the same. Subjects were tested on eight passages similar to those used in the first study. There was no effect of form, nor proximity, but both treatment groups performed better than the control group ($p < .05$). Subjects were also tested on a 394-word narrative in which 10 low-frequency words occurred, with proximity and contextual form being manipulated. Treatment groups again performed better than the control group ($p < .05$).

DUFFELMEYER, FREDERICK A. The effect of context on ascertaining word meaning. *Reading World,* October 1984, *24*(1), 103-107.

Investigates the effect of context vs. no context on the ability to ascertain word meaning on multiple-choice vocabulary tests. Subjects, who were eighth grade students (n = 43), were classified as good or poor readers on the basis of their score on the *Gates-MacGinitie Reading Test.* Two weeks later the students were administered a revised version of the Vocabulary section of the test, in which the stimulus words were embedded in context-rich sentences. Both good and poor readers increased their scores when provided with the words in context ($p < .001$).

NAGY, WILLIAM E.; HERMAN, PATRICIA A.; & ANDERSON, RICHARD C. Learning words from context. *Reading Research Quarterly,* Winter 1985, *20*, 233-253.

Investigates whether children learn the meaning of unfamiliar words while reading. Subjects (n = 57) were eighth-grade students who were identified by school personnel and by the *Gates-MacGinitie Reading Tests* as average and above average readers. As a measure of vocabulary knowledge, the children indicated whether or not they knew the meaning of 186 words and nonwords on a checklist vocabulary test. Three days later, they read either an expository or narrative junior high level text of about 1,000 words. Students were then interviewed individually to ascertain their understanding of the 15 most difficult words in each passage. Their replies were scored on a four-point scale. Finally, a multiple-choice test was administered which assessed knowledge of the meaning of the target words at three difficulty levels. A greater proportion of the target words from a given passage were known by subjects who had read that passage then by subjects who had not ($p < .01$). Learning from context was not affected by reading ability, nor by the subject's background knowledge of the passage topic. Students learned more about words not previously known ($p < .01$), as determined by the multiple-choice test. An attempt is made to estimate the vocabulary growth attributable to learning words from context.

MADISON, JOANNE Y.; CARROLL, BONNIE A.; & DRUM, PRISCILLA A. The effects of directionality and proximity of context clues on the comprehension of unknown words. In Jerome A. Niles & Larry A. Harris (Eds.) *New Inquiries in Reading Research and Instruction.* Thirty-first Yearbook of The National Reading Conference. Rochester: The National Reading Conference, 1982, 105-109.

Examines the effects of context clues on determining word meaning by their specific placement in passages relative to unknown target words. Subjects were fifth-graders ($n = 34$), eighth-graders ($n = 44$), and eleventh-graders ($n = 40$), of high and low ability as determined by teacher evaluation. Ten low-frequency target words, which were unknown in preliminary testing, were selected for each grade level. The target words were embedded in the second sentence of a three-sentence paragraph, with clues as to the word's meaning appearing either before or after the word, and either near or distant in relation to the word. Distant was defined as being six or more words away from the target word. Two words were presented in each of these four conditions, and in a no clue condition. After reading each passage children were asked to make a sentence including the target word, define the target word, and identify the clue that helped them arrive at a meaning. For sentences or definitions responses were scored on a four-point scale, and identification of the correct clue was scored as correct or incorrect. There was no effect for clue identification. On the sentence measure there was a grade by ability effect ($p < .02$), with low ability students performing poorly in eighth grade. Clue conditions were more effective than no clue ($p < .001$), with clues near the target word being more effective than distant clues ($p < .05$). In the definition condition, clue conditions were more effective than no clue ($p < .001$), but there was no effect for position. High ability subjects also outperformed low ability subjects (significance level unspecified).

CARROLL, BONNIE A., & DRUM, PRISCILLA A. The effects of context clue type and variations in content on the comprehension of unknown words. In Jerome A. Niles & Larry A. Harris (Eds.) *New Inquiries in Reading Research and Instruction.* Thirty-first Yearbook of The National Reading Conference. Rochester: The National Reading Conference, 1982, 89-93.

Examines the effectiveness of two categories of context clues embedded in three types of text in facilitating word comprehension by readers of differing reading ability. Subjects ($n = 24$), who were eighth grade students, were divided into four groups on the basis of sex and ability. Ability levels were high and low as determined by teacher evaluation and scores on the *California Test of Basic Skills.* Three passages of 200 words each were prepared with four pseudowords in place of real words, so that the context clues were either definitions or synonyms, and appeared either before the pseudoword or after it. All clues were within five words of the target word. The three passages were fiction, biography, and scientific information, at the fifth grade level. Subjects read each passage and supplied a word for the pseudoword, and were interviewed concerning which clue helped them determine their answer. Only exact responses were scored as correct. High ability students did better than low ability students (p

< .001). For fiction and biography passages, the clue identification scores were higher than on the scientific passage, while the word identification scores for the scientific passage were higher than the other passages (p < .03). Clue type did not make a difference, overall, although definition clues were more effective on the fiction passage, and synonym clues on the scientific passage (p < .01). Clues before the target word were more effective on the fiction and biography passages, and clues after the pseudoword were more effective on the science text.

Imai, Yasuchika. Effect of the environmental context on reading in preschool children. *The Science of Reading*, December 1982, *26*, 155-161.

Presents 3-, 4-, and 5-year-old nursery school children with 20 isolated words in katakana, a Japanese syllabary, and 20 picture stimuli taken in their environmental context. The 16 children in each age group were asked to identify each word or photograph. Younger children made more errors than older, but the types of errors made did not differ significantly. Pictures were identified as well by children who had acquired little katakana recognition as by those who read.

Horodezky, Betty. Comparative difficulty of words in a beginning English language vocabulary. In Karl Tuunainen & Alain Chiaroni (Eds.) *Full Participation. Proceedings of the Second European Conference on Reading, Joensuu, 2-5 August 1981, Finland.* Joensuu, Finland: University of Joensuu, 1982, 233-249.

Cites findings from six dissertation studies all focused on various aspects of comparative difficulty of beginning reading vocabulary. Each study used 108 kindergarteners as subjects. The *Slosson Intelligence Test* (SIT) was administered in each study, and children were divided into high, medium, and low abilities based on the SIT scores. Nine equivalent groups of 12 children each (4 high, 4 medium, 4 low) were formed. Children were taught seven words per week from a list of 63 for three weeks using three instructional methods: phonic, kinesthetic, and meaningful context. In all six studies: 1) no significant relation was found between frequency of occurrence in a word and ease or difficulty in learning sight words; 2) no differences were noted in the effectiveness of the three methods; 3) a significant correlation coefficient was found between SIT score and efficiency in learning sight words; 4) no differences were noted in ease of learning verbs and other parts of speech; and 5) nouns were easier to learn for all IQ levels.

King, James R. Levels of categorization and sight word acquisition. *Reading Psychology*, 1984, *5*(1-2), 129-138.

Tests the effects of levels of categorization on the ability of first graders to learn sight words. The 23 prereading first grade children were presented with 24 sight words, six in each of four levels of categorization: superordinate, basic, frequency control, and subordinate. Children were trained to recognize the words, and then were given an immediate recall, a memory recall, and a 24-hour delay recall posttest. Posttesting results were analyzed by level of the word and type of recall. The basic level was significantly easier to recall than all three other levels of words. All other comparisons between levels of words and types of recall failed to reach significance.

Katz, Leonard, & Feldman, Laurie B. Linguistic coding in word recognition: Comparisons between a deep and a shallow orthography. In Alan M. Lesgold & Charles A. Perfetti (Eds.) *Interactive Processes in Reading*. Hillsdale, NJ: Lawrence Erlbaum Associates, 1981, 85-106.

Explores and discusses numerous questions related to readers' use of their orthography while reading. Reviews research on phonological and nonphonological codes and orthography and phonological codes. Reports four experiments: two with American fifth graders, one with American adults, and one with Yugoslavian college students. The experiments were naming tasks and lexical decision tasks for the fifth graders and the latter for both groups of adults; and in English for the Americans and Serbo-Croatian for the Yugoslavians. Concludes from the four experiments that subjects used syllable information more when reading printed Serbo-Croatian, which represents speech by a shallow alphabetic orthography, than when reading English, whose orthography represents a deeper, morphophonological level of speech. American fifth graders, in contrast to American adults, also used syllable coding for printed word recognition. This suggests that as reading ability matures, phonological coding is supplanted by nonphonological codes that are more efficient for English in terms of speed of assessing the mental lexicon.

Henderson, Leslie. *Orthography and Word Recognition in Reading.* London & New York: Academic Press, 1982.

Reviews research concerning word perception in the fluent reader under three main sections: orthography, from print to sound, and visual word recognition. A variety of models and themes concerned with several aspects of word recognition in reading is critically examined in the light of experimental investigations of word perception.

Clarke, Robert, & Morton, John. Cross modality facilitation in tachistoscopic word recognition. *Quarterly Journal of Experimental Psychology,* February 1983, *35A*, 79-96.

Presents three experiments, all designed to investigate cross-modal facilitation of tachistoscopic word recognition. Experiments 1 and 2 were conducted with 36 and 40 British undergraduate students, respectively; Experiment 3 used 24 adults as subjects. Experiment 1 asked for subjects to recall words presented tachistoscopically in a typed word, a definition, an untidy but legible handwriting, and a control condition. A recognition task followed. Findings of an earlier study were replicated in that words corresponding to previously seen definitions were recalled better than those seen in printed form. No difference was noted in recognition of handwritten and printed words. Experiment 2 investigated the effects of auditory priming on subsequent visual word recognition. Five conditions for recognizing a list of 20 words were presented: typed word, auditory, control, and vocalizing. The opposites of words presented in either a printed or an auditory mode. Prior visual presentation facilitated recognition. No significant transfer was found from auditory presentation to subsequent visual recognition. In Experiment 3, the purpose was to investigate auditory-to-visual priming in such a way as to minimize the effects of guessing strategies. This time a list of 150 words, 4 to 6 letters long, was selected. An effect of auditory priming on visual recognition of words was noted.

Stanovich, Keith E. Word recognition skill and reading ability. In Martin H. Singer (Ed.) *Competent Reader, Disabled Reader: Research and Application.* Hillsdale, NJ: Lawrence Erlbaum Associates, 1982, 81-102.

Reviews research related to individual differences in rapid word recognition ability and the psychological processes involved. Psychological mechanisms are discussed in the areas of lexical access based on a phonological code, memory and phonological codes, phonologically related skills that contribute to early reading success, coordination of the phonological and visual-orthographic codes, and word recognition in context. It is concluded that word recognition is causally related to reading development, but that as yet it is unclear as to whether it is a facilitator of or a prerequisite for such development.

HAINES, L.P., & LEONG., C.K. Coding processes in skilled and less skilled readers. In Elinor Linn Hartwig (Ed.) *Annals of Dyslexia*, Vol. 33. Baltimore, MD: The Orton Dyslexia Society, 1983, 67-89.

Reports the results of two experiments designed to study the nature of lexical access in reading words for meaning. The subjects of both experiments were 72 children in grades four, six, and eight. Half of the 24 children in each grade were skilled readers and half were less skilled. Reading ability was ascertained with the *Canadian Test of Basic Skills*. The reading grade levels of skilled readers at the three grade levels were 5.7, 8.1., and 10.1, respectively; for less skilled readers the scores were 3.6, 5.6, and 7.7, respectively. All subjects were presented tachistoscopically nine sets of six words. The sets were 4, 5, or 6 letters in length and had predictable pronunciations, less predictable pronunciations, or were pseudowords. The dependent variable in Experiment 1 was reaction time to read the word, and in Experiment 2 it was time to say yes or no if it was a real word. The main effects for grades and reading ability were significant in both experiments for both latencies and errors. Pseudowords were generally identified less rapidly in all grade levels.

TRIEMAN, REBECCA. Phonemic analysis, spelling, and reading. In Thomas H. Carr (Ed.) *The Development of Reading Skills*. San Francisco: Jossey-Bass, Inc., 1985, 5-18.

Reviews the research literature considering the effects of syllable-initial consonant clusters on children's performance in tasks related to phonemic analysis and reading. Topics surveyed include: effects of initial consonant clusters on children's phonemic analysis performance, children's reading of initial consonant clusters, and children's spelling of initial consonant clusters. Concluded from the literature review are: 1) vowels are more closely tied to final than to initial consonants, 2) onsets (initial consonant or consonant cluster) are true constituents of a syllable, 3) phonemic analysis tasks requiring children to subdivide onsets are more difficult than tasks allowing them to deal with the onset as a unit, and 4) children appear to have difficulty decoding initial consonant clusters in print.

GROFF, PATRICK. The significance of word length. *Visible Language*, Autumn 1983, *17*, 396-398.

Analyzes data from an earlier study of the written word recognition of over 200 fourth-grade pupils in order to report the relation between word length and the ability of fourth graders to recognize words. The researcher categorized the 1302 words used in the original study by syllable length, determined the percentage of words in each of the syllable-length categories, and calculated the average percent of correct word identification for each syllable length. A Pearson product-moment coefficient between accuracy of word identification and word length was .004. The correlation between accurate identification and number of letters per word was -.023, indicating no degree of observable relation between word length and word recognition for these subjects.

BLANCHARD, JAY, & MCNINCH, GEORGE. The effects of anthropomorphism on word meaning. *Journal of Educational Research*, November/December 1984, *78*, 105-110.

Explores the impact of anthropomorphic cues on word learning in relation to illustration and no-picture cue conditions with 102 second semester kindergarten children drawn from four suburban-rural schools in two states. Subjects were randomly assigned to either a similar or dissimilar word group and then further assigned in random order to one of three training conditions: anthropomorphic cue, explicative-illustration cue, or no-picture cue (only voice cue). Effects for word types, training conditions, and interaction were investigated. Concerning the dissimilar words, it was found the anthropomorphic and no-picture cue groups differed significantly from the illustrated cue group, but did not differ significantly from each other. Respecting similar words, the anthropomorphic and no-picture cues appeared to aid retention more than did illustrated cues only. Little difference existed between trials to criterion or retention test scores of similar or dissimilar words if no picture cues were provided. It was concluded that the positive effects of anthropomorphic cues on word learning and retention indicated that it is the type and content of the picture that controls the effects.

Gernsbacher, Morton Ann. Resolving 20 years of inconsistent interactions between lexical familiarity and orthography, concreteness, and polysemy. *Journal of Experimental Psychology: General*, June 1984, *113*, 256-281.

Designs and reports on a series of six experiments conducted to clarify inconsistent findings in the research on word recognition. Subjects for all experiments were undergraduates enrolled in an introductory psychology course and numbered from 18 to 45. The first two experiments indicated that words of the same low printed frequency are not always equally familiar to readers. Rather, many low-printed-frequency words used in prior studies varied on subjects' ratings of experiential familiarity. Experiments 3-6 manipulated lexical familiarity through bigram frequency, semantic concreteness, and number of meanings. The findings suggested that only experiential familiarity affected word recognition latencies. Previous reports of an effect of orthographic regularity, semantic concreteness, or polysemy on recognizing low-printed-frequency words, the author concluded, were the result of confounding experiential familiarity within some level of these other three variables.

Imai, Yasuchika. The effect of calligraphic styles on the familiarity of Chinese characters. *The Science of Reading*, October 1984, *28*, 81-86.

Presents 30 Chinese characters in three calligraphic styles (square, semicursive, cursive) to 130 second- and sixth-grade children and asks whether or not the character was familiar. Additionally, children were asked how many books they had read in the previous month and their experience in studying calligraphy outside of school. Sixth graders had higher familiarity scores than second graders. There were no significant variations in familiarity with Chinese characters, the amount of reading done, and experience in studying calligraphy.

Bramki, Doudja, & Williams, Ray. Lexical familiarization in economics text, and its pedagogic implications in reading comprehension. *Reading in a Foreign Language*, Spring 1984, *2*, 169-181.

Analyzes the first four chapters of a college introductory economics textbook, consisting of 17,802 running words, in terms of the author's devices for familiarizing the reader with the meaning of new concepts. Instances of lexical familiarization were identified (n = 136), and categorized as exemplification (32%), explanation (31%), definition (26%), stipulation (5%) synonym (4%), and nonverbal illustration (2%). The categories of exemplification, explanation, and stipulation are further subdivided. Suggestions are made concerning the teaching of the recognition of devices of lexical familiarization.

Downing, J.; Timko, H.; & LaRocque, Linda. When is a silent letter silent? *British Journal of Educational Psychology*, February 1984, *54*, 111-114.

Conducts a study with the purpose of establishing an operational definition "silent letter." Subjects were 41 undergraduates who were presented three lists of 20 nonsense syllables each. The first list consisted of C-V-C trigrams; the second list of the same trigrams with the letter "e" added. In List 3, the letter "b" was added to the first 10 trigrams of List 1 and "k" to the remaining 10. The first 10 trigrams ended in "m"; the second 10, in "c." Pronunciation changes were analyzed. The definition then arrived at stated that a silent letter was one which when added to a graphic syllable did not change its pronunciation. Findings are applied to reinterpret results of a previous study.

IV-10 Factors in interpretation

Spiegel, Dixie Lee, & Fitzgerald, Jill. Conflict and conflict structures in stories told by children. In Jerome A. Niles & Larry A. Harris (Eds.) *New Inquiries in Reading Research and Instruction.* Thirty-first Yearbook of The National Reading Conference. Rochester: The National Reading Conference, 1982, 282-286.

Investigates the nature of conflict and conflict structures in stories told by fourth-grade children and their relation to reading achievement. Subjects ($n = 50$) were the lowest ranking readers from a pool of 100. Reading achievement was measured on the *California Achievement Test.* Each pupil told two stories, after silently reading a one-sentence starter. Responses were analyzed for six factors: presence of conflict; presence of responses to conflict; presence of conflict resolution; type of each conflict present; type of resolution; and completeness of conflict structure. Type of conflict and resolution were environmental, interpersonal, and internal. Conflict was included in 72% of stories told, with a mean per story of 2.41 conflicts. Although subjects were also likely to include full responses and resolutions to the conflict there were differences across conflict types ($p < .001$). There were differences in percentages of conflict types for both stories ($p < .001$), 55% being interpersonal, 42% environmental, and 3% internal. There was also differences in the types of resolutions given to environmental conflicts ($p < .028$) and the other two conflict types ($p < .001$). Better readers tended to include conflict in their stories more often than poorer readers ($p < .005$) and to produce more complete conflict structures ($p < .005$).

Hillocks, Jr., George, & Ludlow, Larry H. A taxonomy of skills in reading and interpreting fiction. *American Educational Research Journal*, Spring 1984, *21*, 7-24.

Develops a taxonomy for the interpretation of fiction consisting of seven hierarchically ordered item types and tests the validity with high school students. Inventories of nine questions each were prepared based on each of four stories which were read by between 77 and 127 high school students each. Written responses were collected and scored, using a partial credit scoring design. Data were analyzed with the Rasch Rating Scale model. Three of the four inventories upheld the hierarchical item order, while the fourth differed only at the extremes. The data also supported the existence of a taxonomic relationship as characterizing the item hierarchies. Readers who could not answer lower level questions were not able to answer higher level ones, while those who could answer higher level questions could also answer lower level ones.

Micham, Dennis L. Memory for irony in prose. *Discourse Processes*, January/March 1984, *7*, 89-101.

Studies the effect of irony on recognition of information from a passage. The 64 undergraduate student subjects were paid to participate. Eight editorials, each consisting of two paragraphs six sentences in length, were prepared. The last sentence of each paragraph was written in a nonironic and an ironic version, usually differing by only one word. Along with the basic ironic/nonironic versions, syntactic variants and syntactically similar semantic variants of the basic pair were prepared. Subjects were given a booklet consisting of two filler editorials, versions of four of the eight experimental editorials, and a final filler. Each editorial was then rated on a series of eight numerical scales. When all editorials had been read, subjects read a list of probe sentences and were to indicate whether or not they had read them before. Semantic changes were detected more easily than syntactic changes. Memory for irony was better than that for syntax and not significantly different from that for semantic content.

Manelis, Leon. Effects of prose structure on memory. *Discourse Processes*, October-December 1983, *6*, 403-410.

Examines the concept of level in one system of prose analysis. Two brief experiments are reported, using 16 and 24 undergraduate psychology students, respectively. In Experiment 1, subjects were presented with two versions of each of two passages, one in which the target paragraph was elaborated upon and one in which subsequent paragraphs were about different topics. Students were to designate which passage contained more elaboration of the target paragraph. Of the 16 subjects, 12 chose the elaborated versions of both passages. In Experiment 2, the task was to read the passages and arrange them in the form of a conventional outline. Target paragraphs in the elaborated versions were judged to have more subordinates than targets in the low elaborated versions. Results are interpreted as supporting the idea that the distinction between high elaborated and low elaborated targets can be described in terms of elaboration, but the results were not felt to support a distinction in terms of levels.

Simons, P.R.J. Instructing with analogies. *Journal of Educational Psychology*, June 1984, *76*, 513-527.

Reports the results of six experiments addressing the effectiveness of analogies as reading aids. The experiments evaluate the effectiveness of instruction with analogies for younger subjects studying longer texts than had previously been used in experimentation, the effect of analogies on reading time, and the effect of three functions of analogies (concretizing, structurizing, and active assimiliation) as aids to reading. Subjects for the experiments ranged from elementary through college students studying science, biology, psychology, and computer programming in The Netherlands. In Experiment 1, secondary students who read a science unit with analogies outperformed those who did not on several dependent measures. In Experiment 2 time limits were imposed in order to direct the experiment toward efficiency of use of analogies. No significant achievement differences were found between experimental and control groups. For Experiment 3, a shorter text was used as well as more explicit connections between analogies and text. Again, the experimental group outperformed the control group on measures of immediate recall, transfer, and seeing relationships. For Experiment 4, one treatment group was provided a comparative organizer, while a second received a concrete analogy. A third group acted as a control. The comparative-organizer group had superior retention over the analogies group, but no other differences were significant. Results from Experiment 5 indicated no difference in favor of subjects who read connected analogies (those from the same domain as the experimental passage) over their counterparts who read unconnected analogies. In Experiment 6, no posttest differences were found for subjects who were explicitly told to draw active comparisons over those who drew more passive comparisons. The results of all six experiments were interpreted to support the effectiveness of analogies as reading aids when sufficient time is available to process them.

Bennett, Susan G. The responses of adolescent boys to three short stories: Implications for curriculum selection. *Arizona English Bulletin*, February 1983, *25*(2), 72-79.

Examines the interaction between level of moral development, as defined by score on the *Defining Issues Test*, and mode of response to literature for 74 Caucasian males, ages 14 through 18. The purpose was to investigate whether students at the highest level of moral development, postconventional, would approach short stories through the interpretive mode of reader response Subjects simultaneously read and listened to three short stories. After each, 12 items, two representing each of the modes of literary response, were ranked for initial reaction. Then participants chose the three statements that best described their reactions to the stories, answered four specific questions, and ranked their three favorite characters. Readers operating at the postconventional level of moral development chose the interpretive mode of response more frequently than did students at lower levels. No apparent relation existed between level of moral development and character preference, reading level and moral development or mode of response, or number of free responses to the four open-ended questions.

Andersson, Billie Venturatos, & Gipe, Joan P. Creativity as a mediating variable in inferential reading comprehension. *Reading Psychology*, July-December 1983, *4*, 313-325.

Compares scores of two groups of sixth graders on a test of divergent thinking and on a measure of inferential reading comprehension. Subjects included 125 children from a parochial school in New Orleans and 93 children from a Greek-American parochial school in New York. The three divergent subtests of the the Meeker *Structure-of-Intellect Abilities Test* were administered: divergent figural units (DFU), divergent semantic units (DMU), and divergent symbolic relations (DSR). Inferential comprehension was assessed through the use of 24 prose passages patterned after a story grammar. The passages consisted of 12 unfamiliar and 12 familiar schemata with five inferential questions following each passage. Subjects performed well on questions for which they had schemata, and poorly on other questions. Step-wise multiple regression analysis results showed that DMU and DSR contributed the most unique information to inferential reading comprehension.

IV-11 Oral reading

Franc, Lillian H., & Hildebrandt, Jeannette. Monitoring progress toward independent silent reading. *Reading Horizons*, Fall 1984, *25*, 17-23.

Reports the results of monitoring the development of fluent oral reading in 11 New England first graders for a period of 26 weeks. In addition, the researchers recorded progress related to the children's ability to use a modified cloze procedure, charted children's ability to write a complete sentence independently, and recorded observations of children's voluntary reading of trade books. All subjects were placed in one of four ability-level reading groups and were audiotaped biweekly reading orally. During the third week, children began writing sessions, initially supplying words in a modified cloze procedure. The children also independently wrote sentences three times each week. Anecdotal records were recorded weekly. Ten of the 11 subjects exhibited a similar pattern of skill development: 1) ability to complete a sentence using modified cloze; 2) ability to compose a sentence using a given noun; 3) ability to read with increasing fluency passages that had been modeled by an adult reader; and 4) ability to read silently and independently self-selected trade books. Seven of the 11 children became independent silent readers during the 26 weeks of the study. Of the four others, two attained fluent oral reading.

Blaxall, Janet, & Willows, Dale M. Reading ability and text difficulty as influences on second graders' oral reading errors. *Journal of Educational Psychology*, April 1984, *76*, 330-341.

Assesses the impact of reading ability and text difficulty on the types of oral reading errors made by good, average, and poor second grade readers. The sample of 81 children were administered the *Peabody Picture Vocabulary Test* and the *Gates-MacGinitie Reading Tests*. From this group, 14 each of good, average, and poor readers were selected so that the mean chronological age and IQs were similar across groups. On each of three occasions, each child was given one passage from each of the first seven levels of difficulty on the *Gray Oral*

Reading Test to read. Oral reading was discontinued if a child had four or more errors on the first 16 words in a passage. Records were taken of omissions, insertions, and substitutions. Substitution errors then were evaluated for graphic similarity, grammatical acceptability, and semantic appropriateness. Proportions of total number of errors in each of these categories were calculated for each subject at each level of difficulty and comparisons then made between groups across difficulty levels. The proportion of graphically similar errors increased as difficulty level of materials increased; proportions of grammatically acceptable and semantically appropriate errors decreased. Poor readers showed less change in all types of errors than did the other two groups.

SCHADLER, MARGARET, & O'CONNELL, DANIEL C. Temporal analyses of children's comprehension during oral reading. *Journal of Psycholinguistic Research*, July 1984, *13*, 259-273.

Studies the oral reading and retelling of brief stories presented in normal and anomalous form. The 25 second graders and 20 fourth graders were asked to read orally three different stories, one a normal version and two containing an anomaly in the third sentence. Anomalies were produced by reversing the order of two predicate nouns. Three factual questions followed the retelling. Additionally, for the anomalous stories children were asked a series of specific questions about the nature of the anomaly. Articulation rate and pause time were used to analyze the oral reading. Content analysis as well as articulation rate was used with retelling. Presence of the anomaly decreased articulation rate and increased pause time during reading. Anomalous words were read literally. In retelling, children tended to make the anomaly consistent with the rest of the story and with their background knowledge. No temporal effects of the anomalous words were evident in the retellings.

WORRALL, ANITA. Patterns of comprehension in third grade. *Australian Journal of Reading*, March 1985, *8*, 44-48.

Examines miscue patterns of 18 third graders, six each identified as high, average, and low reading proficiency. In addition to retelling selections read orally, corrections and semantic acceptability were noted. Additionally, readers' use of cohesive ties was examined. Miscues of proficient readers tended not to change meaning or were corrected; low proficiency readers tended not to self-correct but to retain meaning when they did correct. There was little difference in retelling scores of the three groups. The three groups differed little in the amount of miscues judged as cohesive. When they did miscue, proficient readers did not lose cohesion.

GAMBRELL, LINDA B.; WILSON, ROBERT M.; & GANTT, WALTER N. Classroom observations of task-attending behaviors of good and poor readers. *Journal of Educational Research*, July/August 1981, *74*, 400-404.

Observes the task-attending behaviors of good and poor readers during reading instruction. Subjects were all fourth-grade boys from 17 classrooms in six schools. There were 35 good and 35 poor readers. Reading ability was assessed by teacher judgment and performance on the *Iowa Test of Basic Skills*. All subjects also scored within one (+ or -) standard deviation on the *Cognitive Abilities Test*. Subjects were observed in class for 10 minutes. Every 15 seconds subjects' behavior was recorded in each of three categories: 1) working under teacher direction or working independently; 2) working on-task or working off-task; and 3) if working on-task, working on-task on letters or words, reading in context or working on nonreading activities. After observation, subjects orally read a selection of their choice from the specific material they had been using during reading instruction. A percentage of word accuracy was computed from this oral reading for each subject. There was no significant difference in the task-attending behavior of good and poor readers in both teacher-directed instruction and when reading independently. The average oral reading accuracy for good readers was 99%, with no good readers having an accuracy less than 97%. Average oral reading accuracy for poor readers was 89%. Poor readers with oral reading accuracies less than 95% spent less time on-task during reading than poor readers with oral accuracies above 95%. Suggests that there may be a relation between time on-task and the difficulty of reading material.

Harding, Leonora M. Reading errors and style in children with a specific reading disability. *Journal of Research in Reading*, September 1984, *7*, 103-112.

Compares the reading error pattern and reading style of 24 reading disabled children (aged 7.6-8.6) with 24 average readers of the same age. Subjects came from 13 schools in Northern Ireland. All were of average intelligence as determined by WISC scores. The reading range of the average readers on the *Schonell Graded Word Reading Test* was 7.9 to 10.9 years; for disabled readers, the range was 5.1 to 7.0 years. Children were administered the *Neale Analysis of Reading* and scores for accuracy and comprehension were calculated. The first 25 substitution miscues were scored for graphophonic, syntactic, or semantic similarity to the expected response using a 0-9 scoring system. Additionally, miscues on the Schonell were scored for graphophonic similarity, the *Domain Phonics Test* was given, and a test administered to check ability to recognize 10 words, 10 pronounceable trigrams, and 10 unpronounceable trigrams. Reading disabled children scored lower than average readers on all measures except the Neale syntactic and semantic proximity scores. Disabled readers' semantic similarity scores were higher than those of average readers, and there was no difference in syntactic similarity scores.

Danks, Joseph H., & Hill, Gregory O. An interactive analysis of oral reading. In Alan M. Lesgold & Charles A. Perfetti (Eds.) *Interactive Processes in Reading.* Hillsdale, NJ: Lawrence Erlbaum Associates, 1981, 131-153.

Uses readers at several different levels of reading skill in four experiments to assess how different types of textual knowledge are used in oral reading. The basic procedure of all the experiments was to alter critical words in a long story by violating one or more of five types of textual information, and analyzing readers' oral productions. The five violations were lexical, syntactic + semantic, syntactic, semantic, and factual. Three experiments were conducted with adults. The subjects of the fourth experiment were second, fourth, and sixth graders, who read stories one grade below their actual grade. Postulates an interactive model of oral reading and discusses it in relation to the interactive models of Rumelhart and Marslen-Wilson & Welsh. Concludes with a discussion of the demands of oral reading and an interpretation of the results of the four experiments.

Driver, D.C., & Elkins, J. Oral reading strategies among high school boys of Australian and Italian descent. *The Australian Journal of Education*, April 1981, *25*, 73-80.

Analyzes the oral reading strategies of high school students varying in silent reading achievement and age of learning to speak English. Subjects were all seventh and eighth year students (average age 13-4) in Brisbane, Australia: 71 native Australians, all of whom spoke English from birth, and 30 Italians who immigrated or were born in Australia after their parents immigrated. Eighty percent of the Italian subjects began speaking English after attending school. Subjects were divided into four reading levels on the basis of the *Cooperative Reading Comprehension Test*. All subjects read the six prose passages from the *Neale Analysis of Reading Ability*. The oral reading data were analyzed utilizing the *Reading Miscue Inventory*. The correlation coefficient between oral reading accuracy and reading achievement was -.53. There were no significant differences in oral reading accuracy between Australian and Italian subjects, except that among readers with low silent reading achievement, a greater proportion of Italian students (56%) read with higher oral reading accuracy than did Australian students (20%). All four reading ability groups made effective and similar use of syntactic strategies. Lower ability readers made less effective use of semantic strategies than better readers, and all readers made fewer semantically acceptable substitutions than syntactic. All four reading levels were similar in rate of real-word self-corrections and in number of miscues that had high graphic and sound similarity. As text difficulty increased, more use was made of the graphophonic cueing system, with the higher reading ability groups retaining the semantic and syntactic cueing systems longer.

CARNINE, LINDA; CARNINE, DOUGLAS; & GERSTEN, RUSSELL. Analysis of oral reading errors made by economically disadvantaged students taught with a synthetic-phonics approach. *Reading Research Quarterly*, Spring 1984, *19*, 343-356.

Describes and analyzes the oral reading errors made by low-income first (n = 58) and third (n = 53) grade subjects taught with a synthetic-phonics program. First graders read specially constructed passages comprised of about 80% practiced (previously taught) and 20% transfer words. Third graders read passages from previously unread basals. Errors were categorized as no response, self-corrected, real word substitution, and nonsense word substitution, and classified according to degree of graphic and phonemic approximation. Real word substitutions were also analyzed in terms of contextual constraints. For first graders, average error rate was higher for transfer words (50%) than for practiced words (6%). On practiced words, first graders made proportionally more real word errors and more self-corrects; on transfer words, they made more nonsense errors and no response. Most errors demonstrated high degrees of graphic similarity. Differences between practiced and transfer words were not statistically significant. For third graders, mean accuracy was 97%, with nonsense errors low (6%). Contextual constraints for real word substitutions and omissions were 90% semantic and 79% syntactic. Graphically similar substitutions were frequent (76%).

HOFFMAN, JAMES V.; O'NEAL, SHARON; & CLEMENTS, RICHARD O. The effects of differentiated patterns of verbal feedback to miscues on word identification strategies and success. In Jerome A. Niles & Larry A. Harris (Eds.) *New Inquiries in Reading Research and Instruction*. Thirty-first Yearbook of The National Reading Conference. Rochester: The National Reading Conference, 1982, 145-151.

Investigates the effects of variations in the form and timing of feedback to oral reading miscues on word identification strategies. Subjects (n = 84) were selected from the high reading groups in 20 second grade classrooms. Subjects were administered the *Slosson Oral Reading Test* (SORT), and read two 150-word passages. The passages were at a second grade difficulty level, except that each contained four difficult words which appeared twice. Verbal feedback of six types was provided for miscues on these difficult words alone. The feedback was provision of the word, emphasized orthographic features of the word, or focused attention on context. It was provided either immediately at the miscue or at the first sentence following the miscue. Pupils scoring above the mean on the SORT were classified as of high ability, with those scoring below the mean being low ability. There was no difference between treatment groups in the percentage of miscues on the target words, but low ability readers made more miscues than high ability readers ($p < .001$). Analyses were made to examine the effects of miscue type, form of feedback, timing of feedback, and ability group on percentage of miscues. One four-way interaction was significant, the major source of variation being the differential performance of the poorer readers under various feedback conditions. Students in delayed feedback conditions were more effective at identifying their own miscues.

ROSE, TERRY L. The effects of two prepractice procedures on oral reading. *Journal of Learning Disabilities*, November 1984, *17*, 544-548.

Investigates the relative effects of two previewing procedures (silent and listening) on the oral reading rate and accuracy of six learning disabled children ranging in age from 9 to 13-2. The subjects' mean score on the *Gilmore Oral Reading Test* was 1.8 (range = 1.4 to 2.8). An alternating treatments design was used to compare the practice procedures. Treatment 1 included silent reading of an assigned passage prior to reading aloud, while Treatment 2 involved listening as the teacher read the assigned selection while the child followed along silently prior to reading aloud. High-interest, low-vocabulary reading instructional materials were selected. Subjects' mispronunciations, omissions, substitutions, and unknown words were considered errors. Results indicated that systematic prepractice procedures were related to higher performance levels than was baseline (no prepractice). Differential effects were noted: the listening procedure was related to higher rates or words read correctly than was the silent procedure.

SACHS, ARLENE. The effects of previewing activities on oral reading miscues. *Remedial and Special Education*, May/June 1984, *5*(3), 45-49.

Examines the effects of two previewing activities upon the oral reading miscues of 36 children (aged 9-11) randomly selected from a summer literacy institute. All children's word recognition scores on the Burns and Roe *Informal Reading Inventory* were at least one year below current grade placement. The two previewing activities were: 1) a concept analysis activity (CAA), a technique designed to activate the students' prior knowledge by generated examples and nonexamples of a paragraph's central concept; and 2) a motivation statement (MS), a technique for stage-setting, consisting of a statement read aloud by the experimenter before the pupils read. Following one of the preview techniques, to demonstrate word recognition in context and in isolation, children either read conventional paragraphs on the Burns and Roe or lists of related words. Graphophonic, syntactic, and semantic miscues were recorded. To counterbalance for order of previewing activity and experimenters, a factorial/modified Latin-Square design was used. An analysis of variance with repeated measures on the last factor was used to analyze the data. Results indicated that the CAA (but not the MS) significantly decreased the oral reading miscues for the paragraph condition ($p < .01$). A one-way ANOVA, used to analyze reading speeds for each condition, indicated that reading speed increased significantly when students participated in the CAA and paragraph condition ($p < .0001$).

TAFT, MARY LYNN, & LESLIE, LAUREN. The effects of prior knowledge and oral reading accuracy on miscues and comprehension. *Journal of Reading Behavior*, 1985, *17*(2), 163-179.

Investigates the effect of prior knowledge on the quality of children's miscues and comprehension when oral reading accuracy is controlled. Subjects were third-grade average readers, who had either recently completed an environmental education unit on food chains ($n = 30$), or had not ($n = 27$). The level of background knowledge was also assessed by a free association task with seven key concept words from the passage used in the study. Seven subjects who had completed the unit were excluded on the basis of their low scores on this measure. A 281-word expository passage was constructed which focused on key concepts and vocabulary taught in the food relationship unit. Children read the passage orally, and retold as much as they could. They were then asked 12 comprehension questions which were evenly divided between being textually explicit, textually implicit, and scriptally implicit. Miscues were scored as being contextually appropriate or inappropriate, corrected or not-corrected,

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and for graphic similarity to the text. Retellings were scored in terms of the total number of propositions recalled. Oral reading accuracy was scored as being 90-94%, or 95-99%. Ten children scored below 90% and were excluded from the analysis. Children with high background knowledge made fewer miscues which resulted in meaning loss ($p < .05$), and fewer miscues which were graphically similar to the text ($p < .01$). Level of background knowledge had an effect on the number of comprehension questions answered of all types ($p < .05$), but not on the number of propositions recalled, regardless of level of oral reading accuracy.

Leibert, Robert E. A study of word errors produced by second, third and fourth grade pupils reading the Dolch Word List. In Jerome A. Niles & Larry A. Harris (Eds.) *New Inquiries in Reading Research and Instruction.* Thirty-first Yearbook of The National Reading Conference. Rochester: The National Reading Conference, 1982, 166-169.

Examines the relative difficulty of words on the Dolch Word List for second, third, and fourth grade pupils, by identifying characteristics and number of incorrect responses. Subjects were randomly selected from each of grades two ($n = 100$), three ($n = 100$), and four ($n = 94$) in five schools. Pupils read the word list in 11 sections of 20 words. At the end of each section they were asked to pronounce any word missed or skipped. The total number of errors made decreased as grade level increased. For average difficulty words pupils corrected approximately the same number of initial errors at each grade level. A list of 33 words is reported for which the same response was given for at least 50% of the incorrect responses. Most of these responses were either graphically similar or involved a shift in vowel sound.

Sadoski, Mark, & Page, William D. Miscue combination scores and reading comprehension: Analysis and comparison. *Reading World,* October 1984, *24*(1), 43-53.

Studies the relation existing between five miscue combination scores and three measures of reading comprehension and compares miscue combination scores with one another in terms of predicting reading comprehension scores. The five combination scores focused on were: 1) the Comprehending Score, 2) the Comprehension Process Score, 3) the Additive Index, 4) the Altercue Index, and 5) the Extended Cue Index. The three measures of comprehension used included a post-oral reading cloze test, the reading subtest of the *Metropolitan Achievement Test* (MAT), and a passage dependent multiple-choice test. Each of the 48 fifth grade subjects orally read a 1300-word story, followed by an oral-reading cloze test and the multiple-choice test. MAT scores were obtained from school files. Miscue combination scores were calculated on the first 25 miscues. Each of the miscue scores was a significant predictor of each of the comprehension measures. Zero order correlation coefficients between miscue combination scores and comprehension measures ranged from .32 to .73. With cloze scores, the coefficients ranged from .50 to .55; with multiple-choice scores, the coefficients ranged from .32 and .37; with MAT scores, between .63 and .73. The Comprehension Process Score gave the highest positive coefficient of correlation with all three comprehension measures.

Thompson, G. Brian. Self-corrections and the reading process: An evaluation of evidence. *Journal of Research in Reading,* February 1984, *7,* 53-61.

Argues for an alternative explanation for the significance of self-corrections in the reading process. Suggests that self-corrections may reflect incomplete processing that occurs with premature responding. Cites literature consistent with and supportive of this interpretation. States that there is no adequate support in the literature for suggesting that teachers try to increase the incidence of a pupil's self-corrections.

Fagan, William T. Word identification strategies in context of a gain and no-gain remedial reading group. *Reading World,* October 1984, *24*(1), 54-64.

Identifies the word identification strategies for a group of seven readers who made gains in a clinical remedial reading program and a group of six readers who made no gains, as measured by the *Standard Reading Inventory.* All children were administered pre- and posttest reading passages with an intervening ten-week tutorial period. Each of their substitution miscues on the passages was categorized as either a real or pseudoword and analyzed to determine the number of substituted letter combinations that were in common with the test word. In addition, each substitution miscue was analyzed for the length of the word, percent of ascending letters accessed, percent of descending letters accessed, and percent of grapheme cues accessed from the beginning, middle, and end of the word. There were similarities in the word identification strategies for both groups. Word length was a response cue for both groups; each gave more real word responses to shorter words. When real word responses were not available, both groups were more analytical of the test word in providing a response. Both groups tended to use cues from the initial part of the word, and used descending letters more often than ascending letters. Both groups had become more aware of the constraints of context by the end of the program and were providing fewer pseudoword substitutions. The factor that distinguished the group that made gains from the no-gain group was that the former became more analytical of the test words. The use of grapheme units of various sizes increased, as well as the use of medial word part cues almost as often as initial word part cues.

Gourley, Judith W. Discourse structure: Expectations of beginning readings and readability of text. *Journal of Reading Behavior,* 1984, *16*(3), 169-188.

Examines discourse factors as sources of difficulty in texts for beginning readers. Data are reported from nine New England kindergarten and first grade children reading aloud two primer texts and one trade book. Overall readability of the three stories was assessed first by the Spache readability formula and then by quantitative examination of miscues. The following quantitative criteria were used to locate portions of the text where children's misreadings converged: (a) words which elicited miscues of any type from one half or more of the children; (b) words which elicited meaning-changing miscues from one third or more of the children; and (c) sentences which were read with meaning change by one third or more of the children. Using the convergence of quantitative indicators, a subset of miscue data was identified for qualitative analysis to determine what expectations about discourse children's miscues reflect. Analysis of these miscues and children's retellings showed patterns of difficulty related to (a) connective devices; (b) narrative voice; (c) pattern repetition; and (d) the role of pictures. Results suggested that beginning readers were more successful when text met their expectations about the use of connective and rhetorical devices and when patterned repetition and pictures were related to discourse structure.

IV-12 Rate of reading

Joldersma, John, & Aaron, Robert. Rate of comprehension, a historical view with implications for current research. In George H. McNinch (Ed.) *Reading Research to Reading Practice.* Third Yearbook of The American Reading Forum. Athens, GA: The American Reading Forum, 1983, 2-5.

Presents an historical review of selected research concerning reading rate. Areas examined include automaticity, mature reading, the age at which to begin rate training, methods of teaching, skilled reading, the testing of silent reading, and eye movements in reading.

Belmore, Susan M. Reading computer-presented text. *Bulletin of the Psychonomic Society,* January 1985, *23,* 12-14.

Compares reading time and comprehension for paper and computer-presented passages for 20 undergraduates. Subjects read four passages printed on paper and four displayed on a microcomputer. Passages varied in length from 127 to 221 words and occurred in a constant order for all subjects. Half of the subjects read the first four passages on the computer screen, half on paper. Each passage was followed by several multiple-choice comprehension questions. Overall, subjects took 12% longer to read and comprehended 47% less with computer-presented text than with paper-presented text. However, there was no disadvantage for computer-presented text in either reading time or comprehension when subjects were tested on the paper-presented passages prior to reading computer-presented text.

Kruk, Richard S., & Muter, Paul. Reading of continuous text on video screens. *Human Factors,* June 1984, *26,* 339-345.

Conducts three experiments investigating the effects on reading rate of the time required to fill the video screen, the number of characters per line and the number of lines per page, the distance between the screen and the reader, the interline spacing, and the contrast ratio of the video image. Subjects in all three experiments (n = 24, 18, 12) were Canadian undergraduate students. In Experiment 1, reading of continuous text was slower from a CRT screen than from a book. In Experiment 2, no difference in rate or comprehension was noted for distance from the screen. In Experiment 3, increasing the contrast ratio had no effect on rate but there was an effect for interline spacing, with single spacing producing 10.9% slower reading than did double spacing.

Stone, V. Frank. The effect of intersentential relations on the comprehension of connected discourse. In Michael L. Kamil & Alden J. Moe (Eds.) *Perspectives on Reading Research and Instruction.* Twenty-ninth Yearbook of The National Reading Conference. Washington, DC: The National Reading Conference, 1980, 105-109.

Investigates the effect of intersentential relations on reading speed. Subjects (n = 12), who were college students, read two passages on a machine which recorded the pattern of eye movements when reading. The two passages together contained 10 verbs which entailed a direct inference, and 10 which entailed an indirect inference. They were presented in two forms, so that the same sentence contained a direct inference case entailment in one form, and an indirect inference case entailment in the other. Subjects read only one form of the passages. Sentences preceded by a direct inference case entailment verb took longer to read than sentences preceded by an indirect case entailment verb ($p < .001$). The time spent reading the two sets of materials did not differ, and there were no interaction effects.

Roen, Duane H., & Piché, Gene L. The effects of selected text-forming structures on college freshmen's comprehension of expository prose. *Research in the Teaching of English,* February 1984, *18,* 8-25.

Examines the effect on college freshmen's reading rate and recall of the individual and combined effects of between-sentence cohesive conjunctions, reference, and response rhetorical predicates. Subjects were 160 students enrolled in the first freshman composition course. Each subject read one of 16 text versions of two scientific passages. Written free recall protocols were collected and analyzed for the number of idea units recalled. In general, the results revealed no systematic effects of intersentential cohesive conjunctions, reference, lexical cohesion, and response rhetorical predicates on either reading rate or amount of written free recall.

Roen, Duane H. The effects of cohesive conjunctions, reference, response rhetorical predicates, and topic on reading rate and written free recall. *Journal of Reading Behavior,* 1984, *16*(1), 15-26.

Studies the effects of four textual variables on college freshmen's recall and rate of reading of social-scientific prose. Two texts were prepared in 12 versions each, and the 240 subjects were randomly assigned to one of the 24 passage variations. The 24 versions included all possible combinations of: topic (Neanderthals, Pre-Neolithic Farming), cohesive conjunctions (low, moderate, high), reference (high, low), and response rhetorical prediates (present, absent). Written recalls were scored for the number of idea units and a net recall score given each subject. Words-per-minute (WPM) were used as the measure of rate. Statistically significant differences were found in recall due to topic and cohesive conjunctions. For reading rate, no significant differences were found.

IV-13 Other factors related to reading

Moon, Charles; Marlowe, Mike; Stellern, John; & Errera, John. Main and interaction effects of metallic pollutants on cognitive functioning. *Journal of Learning Disabilities,* April 1985, *18,* 217-221.

Deals with the relation of metal levels and metal combinations and performance on reading and spelling tests. Metal levels in 69 children, randomly drawn from grades 3-6 in a university laboratory school, were determined via hair samples and atomic absorption spectroscopy. Academic achievement was assessed by means of the reading and spelling subtests of the *Wide Range Achievement Test* (WRAT). Additionally, the *Bender Visual-Motor Gestalt Test* was given. Data relative to various parental and other individual characteristics were collected via interviews. Analyses revealed a significant decrease in both WRAT scores with increases in hair arsenic and the combination of hair arsenic-hair lead concentrations. Increases in hair aluminum and the combination of hair aluminum-hair lead concentrations were associated with decreased performance on the Bender.

Mulliken, Colleen N., & Henk, William A. Using music as a background for reading: An exploratory study. *Journal of Reading,* January 1985, *28,* 353-358.

Introduces a musical background while intermediate level pupils read three social studies passages to note the effect on comprehension. Subjects were 9 pupils at each of grades 4 through 8 who were randomly selected from classes in one private school. Passages were about 250 words in length and were appropriate to the grade level involved. Ten comprehension questions (4 textually explicit, 4 textually implicit, and 2 scriptally implicit) followed each passage. The three background musical conditions were: 1) no music, 2) classical music, and 3) rock music. Order of treatments and passages were randomized and counterbalanced. The classical music treatment resulted in the highest overall mean performance followed by the no music treatment.

Zinar, Ruth. The language arts and music: Recent research. *Arizona English Bulletin,* Fall 1984, *27*(1), 61-64.

Argues for the use of music as an aid in teaching reading, writing, and spelling. Recent research supporting the use of music as an instructional aid in these areas is cited.

McGuire, Gary N. How arts instruction affects reading and language: Theory and research. *The Reading Teacher,* May 1984, *37,* 835-839.

Reviews research on the effects of music and visual arts on academic achievement in language and reading. It was concluded that while music and visual arts diverge from the cognitive/perceptual processes of language and reading in some respects, there is strong evidence of overlap in many areas. Studies reviewed demonstrate a positive correlation between instruction in music and visual arts and academic achievement in language and reading.

Sheridan, John T.; Baker, Stanley B.; & de Lissovoy, Vladimir. Structured group counseling and explicit bibliotherapy as in-school strategies for preventing problems in youth of changing families. *School Counselor*, November 1984, *32*, 134-141.

Implements and evaluates the merits of two counseling programs, structured group counseling (SGC) and explicit bibliotherapy (EB), for preventing problems in youth of changing families. Subjects were from grades 7, 8, and 9 with 15 in the SGC group and 16 in the EB group. A third group of 17 was used as a control group and received as needed counseling. Three subgroups were formed within each treatment group. EB groups were assigned specific readings and met for five 45-minute sessions over the course of 3½ months to discuss the readings. The SGC groups met for 12 45-minute sessions over the same period. Evaluation measures included school attendance, a 20-item true-false knowledge test of problems experienced by changing families, a student evaluation form, the *Piers-Harris Children's Self-Concept Scale*, grade point average, and a 50-item survey to parents about at home behavior. Subjects in both treatment groups rated the help they received higher than did controls. No other significant differences were found.

Nelson-Le Gall, Sharon, & Glor-Scheib, Susan. Help seeking in elementary classrooms: An observational study. *Contemporary Educational Psychology*, January 1985, *10*, 58-71.

Observes the help-seeking behavior during reading and math periods of first-, third-, and fifth-grade children in seven elementary schools. Ten pupils in math and 10 in reading at each grade level were targeted for intensive observation. Subjects represented three levels of ability: four high ability, four low ability, and two average ability. Seven trained observers were used with 100 minutes of data collected in 10-minute segments on each subject over a six-week period. In general, rates of help-seeking were higher in math than in reading. There were no sex differences in the amount of help sought, but there were sex differences in the type of help requested. Children of different ability levels varied both in rate of help-seeking and type of help requested as well as in the type of responses elicited from their helper choices.

Ziomek, Robert L., & Schoenenberger, William J. The relationship of Title I student achievement to program and school attendance. *The Elementary School Journal*, November 1983, *84*, 232-240.

Examines the relation between attendance and Title I program achievement. Grades 2-6 in a large midwestern school district were chosen for investigation. In all, 93% of the children participating in the Title I reading program and 92% of those in the mathematics program were included. The *Metropolitan Achievement Test* was given on a pre- and posttest basis. In addition to achievement test data, information on school and program attendance was collected. The average school and program attendance rates across all the grades was high. Significant differences between pre- and posttest scores were reported at all grade levels in the yearly evaluation report of both the Title I math and reading programs. Although overall program achievement averages indicated that high attendance and increased achievement were related, an analysis by individual pupils suggested a different pattern. Achievement losses were sometimes associated with high attendance patterns and high gains with low attendance rates.

Thomas, Billie. Early toy preferences of four-year-old readers and nonreaders. *Child Development*, April 1984, *55*, 424-430.

Attempts to identify any difference in the toy and play preferences of early readers and nonreaders. Subjects were 56 four-year-olds, 28 early readers, and 28 nonreaders matched for sex, family background, and on an index of general intelligence. Early readers scored at or above second grade level on the *Woodcock Reading Mastery Tests;* nonreaders were those who identified three words or fewer on the Word Identification Subtest of the Woodcock. A play materials questionnaire was developed and used in individual interviews with mothers. Few significant differences were found between the two groups in children's backgrounds or developmental histories. Significant differences were found in parents' reports of toy preferences. Early readers said the alphabet and wrote the alphabet at a younger age than nonreaders. Early readers were said to have spent more time with and most enjoyed reading readiness toys, while nonreaders spent more time with and most enjoyed gross motor toys.

Mateja, John A., & Wood, Karen D. Secondary students' knowledge of textbook metastructure. In George H. McNinch (Ed.) *Reading in the Disciplines.* Second Yearbook of The American Reading Forum. Athens, GA: The American Reading Forum, 1982, 97-100.

Investigates secondary students' knowledge of the technical, linguistic vocabulary used to refer to the across structures of textbooks and the relation between particular access structures, graphics, and text. Seventh (n = 57) and 12th (n = 89) grade students examined a two-page excerpt from a science textbook. The content of the text was deleted by replacing all letters and numbers with x's of equal point size and weight. Subjects then completed a 20-item instrument designed to assess knowledge of access structures and the language used to refer to them in the content-deleted text. Teacher ratings of each subject's reading level were also collected. Grade and reading level were found to affect knowledge of access structures (p < .0001).

Egan, Owen, & Reilly, Ronan. Traffic density and scholastic achievement. *The Irish Journal of Education*, Summer-Winter 1981, *15*, 70-78.

Examines the relation between automobile traffic density on streets adjacent to 12 primary schools in Dublin, Ireland, and the reading achievement of the 579 third- and fourth-year pupils in these schools. Traffic density was measured by a count of cars passing each school during school hours. The car counts per day for the schools ranged from 132 to 4,134. Reading achievement was assessed with the *Drumcondra English Test*, Level II, Form A. Data were analyzed using multiple regression procedures. After removing SES and gender, schools with higher traffic density did have a small but significantly lower reading achievement in the third year, but no effect in the fourth year. The effect of traffic density was calculated to be 1.89%.

IV-14 Factors related to reading disability

Valtin, Renate. The disabled readers: What are their weaknesses in language and in the reading process? In Karl Tuunainen & Alain Chiaroni (Eds.) *Full Participation. Proceedings of the Second European Conference on Reading, Joensuu, 2-5 August 1981, Finland.* Joensuu, Finland: University of Joensuu, 1982, 114-138.

Argues that discrepant findings into research on reading difficulties are the result of different approaches to assessment and different concepts of reading disabilities. Two approaches to identification and assessment, the etiological approach and the cognitive deficit approach, are criticized. The author proposes the process-oriented approach as a more viable alternative to identifying variables in reading difficulties. Research done on various aspects of this model is reviewed with specific attention to factors in phonological recoding which point to the relevance of language factors in reading disabilities.

Singer, Martin H. Reading disability research: A misguided search for differences. In Martin H. Singer (Ed.) *Competent Reader, Disabled Reader: Research and Application.* Hillsdale, NJ: Lawrence Erlbaum Associates, 1982, 39-54.

Reviews selected research in the area of reading disability, and suggests that it suffers from the application of an inappropriate experimental design. It is argued that research which contrasts groups that differ in their reading ability in order to determine which skills predict poor reading fails to take into account the heterogeneity of poor readers, the absence of task equivalence in comparisons of various abilities, and the abundance of differences between good and poor readers. The development of causal models which would evaluate the relative importance of differences between good and poor readers is suggested.

Torgesen, Joseph K. The use of rationally defined subgroups in research on learning disabilities. In J.P. Das, R.F. Mulcahy, & A.E. Wall (Eds.) *Theory and Research in Learning Disabilities.* New York: Plenum Press, 1982, 111-131.

Presents a model for doing research on learning disabilities. First identifies some of the critical research needs in this area, and then discusses the problem of sample heterogeneity. Follows with five steps that comprise the author's model for research: deciding which type of learning disabled children to study, developing an operational definition by which subjects will actually be selected, experimentation to identify essential processing disabilities, establishing the relation between failure on the criterion task and failure in school, and developing remedial programs that are responsive to processing deficits of children in the target group.

Keogh, Barbara K. Research in learning disabilities: A view of status and need. In J.P. Das, R.F. Mulcahy, & A.E. Wall (Eds.) *Theory and Research in Learning Disabilities.* New York: Plenum Press, 1982, 27-44.

Discusses and reviews three issues related to research and assessment in studying the learning disabled: limitations in learning disability research, developmental models, and needed research. Four limitations of learning disability research are discussed: sample heterogeneity; the failure to recognize that learning disabilities result not only from traits of the child, but also variables in the child's environment; failure to recognize the multivariate nature of the learning disabilities; and research that tends to be fragmented and has fewer major generalizations that can be drawn with confidence. Four areas of needed research are called for: examining the effects of age differences on learning disabilities, the nature of sex differences in learning disabled children, the effects of social and cultural influences, and delineation of measurement variables.

Leong, Che Kan. Promising areas of research into learning disabilities with emphasis on reading disabilities. In J.P. Das, R.F. Mulcahy, & A.E. Wall (Eds.) *Theory and Research in Learning Disabilities.* New York: Plenum Press, 1982, 3-26.

Elucidates four major areas of research needed to develop a better understanding of learning and reading disabilities and reviews selected research in these topics in order to specify the areas. The first major area is meaningfulness of the term learning disabilities and includes the topics component processes of reading and reading disorders, interdependence of decoding and comprehending, comprehension processes, and training to comprehend. The second major area is neuropsychology of reading disorders and includes reviews of two topics: laterality studies and reading disability, and subgroups of disabled readers and pattern analysis. The final two major areas of needed research discussed are orthographic differences and the role of language awareness.

Gredler, Gilbert R. Helping children with learning problems – the American approach. In Malcolm P. Douglass (Ed.) *Claremont Reading Conference Forty-Seventh Yearbook.* Claremont, CA: Claremont Reading Conference, 1983, 160-169.

Reviews literature on the etiology and conditions of reading disabilities. Topics reviewed include neurological impairment, minimal brain dysfunction, and maturational lag. Also discusses the role of intelligence in assessing reading disability.

Bryant, Peter. The next moves. In J.P. Das, R.F. Mulcahy, & A.E. Wall (Eds.) *Theory and Research in Learning Disabilities.* New York: Plenum Press, 1982, 271-281.

Argues that three considerations must be taken into account in future research on learning disabilities. One is for researchers to be open to research by other disciplines on the learning disabled and to be aware of the fuzziness of the concept of learning disabilities because of this. The second argument is for more longitudinal research. The last argument is for those studying learning difficulties to take seriously the more recent insights of developmental psychology, and study the question of the deployment of abilities as well as the more traditional question of the possession of these abilities.

Hynd, George W., & Hynd, Cynthia R. Dyslexia: Neuroanatomical/neurolinguistic perspectives. *Reading Research Quarterly,* Summer 1984, *19*, 482-498.

Reviews from a historical basis attempts to define dyslexia with a focus on recent efforts at developing a classification scheme of subtypes of dyslexia. Particular emphasis is given to research establishing the neurological basis of dyslexia. Validating evidence from brain-mapping procedures and cytoarchitectonic (postmortem) studies is cited. A neurolinguistic model of reading is presented for surface, phonological, and deep dyslexia. Surface dyslexia is identified as a pattern in which nonwords are read well but difficulty occurs with more meaningful words, short words are processed better than long words, and well-established phonological rules are employed. Surface dyslexics cannot access words as wholes or the purely visual-spatial aspects of words. They read better orally than silently. A phonological dyslexic reads familiar words well but has difficulty with function words and nonwords. While comprehension may be relatively good, grapheme-phoneme conversions are difficult. The deep dyslexic while able to read familiar words well, makes many semantic paralexic errors as well as visual-semantic paralexic errors. There is difficulty with nonwords, verbs, and abstract nouns, and a reliance upon imaginability, concreteness, and word frequency. Words can be read better in context. Deep dyslexics can read better silently than orally and have relatively good comprehension. Other subtypes of dyslexia are briefly noted. The application of the neurolinguistic model needs further validation.

Aaron, P.G., & Baker, C[illegible]herine. Empirical and heuristic bases for diagnosis and remediation of specific reading disabilities. *Topics in Learning & Learning Disabilities,* January 1983, *2*(4), 27-42.

Explores in a review of the literature areas of agreement/disagreement related to diagnosis and remediation of specific reading disability. First findings related to the following four principles are discussed: 1) dyslexia is not due to brain damage or any form of neurological impairment; 2) dyslexia is not due to maturational lag; 3) dyslexia is not a homogeneous deficit; and 4) measures such as perceptual-motor training are ineffective in improving skill in reading. Particular emphasis is then given to literature on subgroups of dyslexia and to instructional approaches appropriate to specific subtypes.

DOEHRING, DONALD G. Subtyping of reading disorders: Implications for remediation. In Rosemary F. Bowler (Ed.) *Annals of Dyslexia*, Vol. 34. Baltimore, MD: The Orton Dyslexia Society, 1984, 205-216.

Reviews research related to reading disability subtypes and variation in remedial reading procedures. Concludes that not enough is yet known about subtypes of reading disability to be able to assess the differential effects of variations in remediation. Also concludes that conventional group research designs are too cumbersome for use in evaluating remediation even if disability subtypes could be identified.

CALFEE, ROBERT. The mind of the dyslexic. In Elinor Linn Hartwig (Ed.) *Annals of Dyslexia*, Vol. 33. Baltimore, MD: The Orton Dyslexia Society, 1983, 9-28.

Reviews information processing research findings from the past 25 years, and proposes some hypotheses about the mind of the dyslexic. Offers the perspective that dyslexia ought to be viewed as a problem with the development of the mind rather than a disease of the brain. Discusses the similarities and differences between the mind and the computer, the relation of schema theory to the organization and development of the mind, and the learning modes of learning by doing and learning by schooling. Presents a model of the elements and themes for the coherent teaching curriculum. The elements of the model are language, history of English, decoding, vocabulary, grammar and comprehension. Argues that there is little coherence in the reading curriculum in today's schools, and that this results in classrooms where reading is not coherently taught. Hypothesizes that a major cause of dyslexia is that students are in classrooms where reading is not taught or where an individual pupils is not provided adequate instruction.

BROWN, BRIAN; HAEGERSTROM-PORTNOY, GUNILLA; ADAMS, ANTHONY J.; YINGLING, CHARLES D.; GALIN, DAVID; HERRON, JEANNINE; & MARCUS, MARILYN. Predictive eye movements do not discriminate between dyslexic and control children. *Neuropsychologia*, 1983, *21*(2), 121-128.

Studies saccadic eye movement tracking behavior in 34 dyslexic and 33 control 10-12 year-old boys. Reading ages of subjects were based on the *Gates-MacGinitie Reading Tests*. Other data collected included: *Gray Oral Reading Test*, WISC-R; background history; neurological screening; visual acuity, refraction and binocular function examinations; pure-tone audiometry examination; horizontal eye movements. Eye movements to the target position which fell outside normal saccadic reaction times and within a designated temporal criterion and spatial criterion limits were scored as predictive. No differences were found between dyslexics and controls on the predictive tracking index. Control boys made significantly more saccades than dyslexics when both predictive and nonpredictive saccades were totalled. No difference was noted between the two groups on a rating of tracking quality which included regularity of eye movements, number of saccades, and number of regressions.

ESKENAZI, BRENDA, & DIAMOND, SIDNEY P. Visual exploration of non-verbal material by dyslexic children. *Cortex*, September 1983, *19*, 353-370.

Records eye movements of dyslexic and normal readers as they searched a field for a symbol or object which matched a central target and notes differences between the two groups. Subjects were 15 right-handed dyslexic boys and 15 matched controls, ages 9 to 13. All subjects had Full-Scale WISC-R IQs of at least 85. Dyslexics were reading at least 2.4

years below mental age on the *Gray Oral Reading Test* and the *Wide Range Achievement Test* (WRAT). Controls were paired with dyslexics on age, WISC-R Full-Scale IQ, and socioeconomic status. Subjects were asked to find the figure in an array of 32 or 64 that matched the figure in the center. Eye movement measures analyzed were: direction of initial eye movement, exploration time, and refixations. Eye movements while reading eight lines of increasingly difficult text from the Gray Oral were also recorded for fixations, regressions, corrective movements, reading time, and fixation frequency. Dyslexics took longer than normal readers to find a target on most of the arrays and generally made more refixations to the central figure. For dyslexics, exploration times were related to WRAT reading level and graphomotor skills. Measures of reading eye movements did not correlate with exploration times but did correlate with Gray Oral reading levels.

Brown, Brian; Haegerstrom-Portnoy, Gunilla; Yingling, Charles D.; Herron, Jeannine; Galin, David; & Marcus, Marilyn. Tracking eye movements are normal in dyslexic children. *American Journal of Optometry & Physiological Optics*, May 1983, *60*, 376-383.

Examines oculomotor behavior in 34 dyslexic and 35 control boys, ages 10 to 12. All subjects had WISC-R full-scale IQs above 88, with less than a 30-point difference between verbal and performance scales. Extensive history data were collected from parents. Neurological screening was carried out and pure-tone audiometry, visual acuity, refraction, and binocular function examinations were conducted. The *Gray Oral Reading Test* and the *Gates-MacGinitie Reading Tests* were administered. Eye tracking tasks included: saccadic tracking, predictive smooth pursuit tracking, unpredictable smooth pursuit tracking, and tracking of constant velocity targets. No differences were found between dyslexics and controls on any of the eye movement measures. No evidence of a deficit in the smooth pursuit eye movement system of dyslexics was found, a finding in conflict with previous research results. The authors concluded that dyslexia is probably the result of a verbal and spatial information processing deficit at a more central level rather than a function of oculomotor deficits.

Johnstone, J.; Galin, D.; Fein, G.; Yingling, C.; Herron, J.; & Marcus, M. Regional brain activity in dyslexic and control children during reading tasks: Visual probe event-related potentials. *Brain and Language*, March 1984, *21*, 233-254.

Reports the results of event-related potentials (ERPs) elicited by task-irrelevant visual stimuli in 34 control and 32 dyslexic 10- to 12-year-old boys. WISC-R full-scale IQs were 88 or above with means of 113 for controls and 110 for dyslexics. Included in the tasks administered were silent and oral reading, each at two levels of difficulty, followed by comprehension questions. A total of 28 ERPs were collected for each subject. Subjects were instructed that the flashes and tones were irrelevant to the task and were to be ignored. Differences in regional brain activity between the two groups were noted during reading. A specific effect of difficulty on the central and parietal ERP was found in dyslexics but not in controls. Different patterns of asymmetry were found for the two groups in silent versus oral reading at midtemporal placements. For both groups, a marked asymmetry (R > L) was found at the midtemporal region.

Scarborough, Hollis S. Continuity between childhood dyslexia and adult reading. *British Journal of Psychology*, August 1984, *75*, 329-348.

Presents comparative results of questionnaire responses and measures of reading, spelling, and cognitive performance for adults who did and did not have childhood reading problems. The final sample consisted of 156 parents of 18- to 24-month-old children who had responded to public advertisements requesting participation in a study. Each adult was examined on two occasions of about 90 minutes each and the following data obtained: 1) a questionnaire on medical and educational background, and current literacy habits and attitudes; 2) the Reading Cluster from the *Woodcock-Johnson Psychoeducational Battery*, consisting of sight recognition of words, sounding out of pseudowords, and a cloze-type test; 3) the spelling section of the *Wide Range Achievement Test*; 4) spelling of known sight vocabulary words; 5) pseudoword spelling; 6) the Reading Efficiency subtest of the *Iowa Silent Reading Test*; 7) oral reading speed as determined by the eighth grade level passage on the *Gray Oral Reading Test* in three versions: regular, mirror-image, and nonsense (all content morphemes replaced by pseudowords); 8) picture naming speed; and 9) the Full-Scale, Performance, Verbal IQ scores and 11 subtest scaled scores on the WAIS. Forty subjects reported a reading problem which had lasted for at least a year, had occurred during their elementary years, and was remediated by a teacher or other professional. The other 116 adults constituted a no-report group who recalled no childhood reading problems. Reading expectancies revealed that self-reported childhood reading problems were associated with continued reading difficulties. Disabled readers tended to perform about equally poorly on all reading measures. A higher incidence of reported reading problems was observed in the families of disabled adult readers. There tended to be a superiority of Performance IQ over Verbal IQ in dyslexics; the worst of the poor readers also were slower than controls on picture naming. Sex ratios and hand dominance did not differentiate the two groups.

KERSHNER, JOHN; HENNINGER, POLLY; & COOKE, WALLY. Writing induces a right hemisphere linguistic advantage in dysphonetic dyslexic children: Implications for attention and capacity models of laterality. *Brain and Language*, January 1984, *21*, 105-122.

Investigates, in two experiments, differences between male dysphonetic dyslexics, good readers, and nondysphonetic dyslexics on a dichotic listening task. In Experiment 1, 15 dyslexics and 15 sixth grade good readers, all boys, listened to 84 dichotic pairs of monosyllabic digits and were asked for recall. Good readers were significantly better in overall recall. Dyslexics and good readers were reversed in their ear advantage with dyslexics poorer in right ear recall. Dyslexics with a left ear advantage (LEA) were reported as characterized by difficulties in phonics on the Auditory Vocabulary and Phonetic Analysis subtests of the *Stanford Diagnostic Reading Test*. In Experiment 2, 13 of the original dyslexics from the first experiment were used as subjects. Of these, 10 were classified as dysphonetic dyslexics. The same dichotic listening test was used across two additional procedural variations: writing backwards from right to left and oral report. The 10 dysphonetic dyslexics increased in right ear recall and decreased in left ear recall when going from forward writing to oral recall. Under backward writing, seven boys showed a REA and six showed a LEA. Under oral report conditions, 12 of the 13 boys showed a REA. Thus it is concluded that the dysphonetic dyslexics, compared with the other groups, experienced what seemed to be a dysfunctional shift in hemispheric processing when the dichotic listening task required writing the digits on paper from left to right. They showed a right hemisphere advantage when responding in writing.

BROWN, BRIAN; HAEGERSTROM-PORTNOY, GUNILLA; HERRON, JEANNINE; GALIN, DAVID; YINGLING, CHARLES D.; & MARCUS, MARILYN. Static postural stability is normal in dyslexic children. *Journal of Learning Disabilities*, January 1985, *18*, 31-34.

Examines postural stability in 15 dyslexics and 23 matched controls. All subjects were Caucasian, right-handed, middle-class, 10-12 year-old boys. Mean WISC-R Full Scale IQ for controls was 113.7; for dyslexics, 104.7. Reading ages were obtained from the *Gates-MacGinitie Reading Tests* and the *Gray Oral Reading Test*. Myklebust scores were also compared for the two groups. Postural stability was measured under four conditions: 1) feet side-by-side with eyes open; 2) feet side-by-side with eyes closed; 3) feet heel-to-toe with eyes open, and 4) feet heel-to-toe with eyes closed. No differences were found between the two groups under any of the four conditions. The groups did not differ in the way in which they used visual information to maintain their posture.

FORD, CAROL E.; PELHAM, WILLIAM E.; & ROSS, ALAN O. Selective attention deficits in high test anxious children: A failure to replicate. *Journal of Learning Disabilities*, January 1985, *18*, 15-18.

Investigates selective attention in high test-anxious children and examines an alternative explanation for the results of a previously published study that had supported the contention that performance deficits in high test-anxious children result from their attention to task-irrelevant information. One hundred-fifteen male good and poor second, fourth, and sixth grade readers were labeled as high- and low- test-anxious children based on the *Test Anxiety Scale for Children*. Three measures of selective attention were employed: 1) a visual incidental learning task in which children were asked to recall the location of a relevant picture card in a paired display (central score) and later asked to match the relevant card with its distractor (incidental score); 2) an auditory incidental learning task in which children were asked to recall a list of target words presented initially with an irrelevant distractor (central score) and later asked to recall the distractors (incidental score); and 3) a speeded classification task in which children categorized stimulus items according to relevant dimensions. Results from the experimental task were analyzed using analysis of covariance with IQ as the covariate. A significant main effect was obtained on the visual learning task with high test-anxious children receiving lower central scores than low test-anxious children. No significant effects involving test anxiety were obtained fro the incidental learning portion of the visual task, or for the auditory or speeded classification tasks. In addition, there was a tendency for older poor readers to be more high test-anxious than normal readers. The researchers contend that deficits on one measure of selective attention may be a function of a confound between test anxiety and reading ability.

DENCKLA, MARTHA B.; RUDEL, RITA G.; CHAPMAN, CATHERINE; & KRIEGER, JONATHAN. Motor proficiency in dyslexic children with and without attentional disorders. *Archives of Neurology*, March 1985, *42*, 228-231.

Analyzes two dyslexic groups, one screened the other unscreened, for attentional deficit disorders (ADD). Group 1 consisted of 38 children, aged 7 to 12, selected on the basis of a discrepancy between age and intelligence and reading or a reading quotient (RQ) below .85. Group 2 was composed of 37, selected on a basis similar to those of Group 1 children but also with scores of less than 13 on the *Connors' Parent and Teacher Rating Scales*, instruments used to determine presence or absence of ADD. Children were asked to perform six motor tasks and timed on them. The two groups were not significantly different on IQ or RQ. Group 1 was slower than Group 2 on five of the six timed tasks on both sides of the body. Group 2 also had fewer qualitative signs of dysrhythmia or overflow.

BYRING, ROGER, & PULLIAINEN, VEIJO. Neurological and neuro-psychological deficiencies in a group of older adolescents with dyslexia. *Developmental Medicine & Child Neurology*, December 1984, *26*, 765-773.

Identifies 34 Swedish-speaking male adolescent dyslexics and 34 controls and examines neurological and neuropsychological differences between the two groups. Dyslexics were identified from a group of military recruits on the basis of a 38-word written spelling test. Subjects with 10 or more errors were considered dyslexics; fewer than 10 errors, controls. Data collected included a silent reading five-minute group test, oral reading of 32 words, handedness, and personal history. Neuropsychological informations consisted of measures on: 1) the visual functions of visual synthesis, visual analysis, spatial orientation, spatial reasoning, and visual memory; 2) the nonverbal auditory functions of rhythm discrimination, rhythm analysis, and rhythm production; and 3) the verbal auditory functions of phonemic perception, localization of phonemes in words, oral phonemic synthesis, and verbal auditory short-term memory. The neurological investigation included, among others, laterality, gross motor function, motor function of eyes, fine manipulative ability, and coordination of motor function in extremities. The two groups differed significantly on both measures of reading. Dyslexics did not differ from controls on tasks of visual perception or the more elementary visual tasks. However, they were somewhat lower in visual reasoning. Nonverbal auditory sequential tasks significantly differentiated between the two groups. Abnormal neurological findings were confined to fine manipulative ability and mainly in the left hand.

ANNETT, MARIAN, & KILSHAW, DIANA. Lateral preference and skill in dyslexics: Implications of the right shift theory. *Journal of Child Psychology and Psychiatry*, July 1984, *25*, 357-377.

Studies lateral preferences and left minus right (L-R) hand movement time of 109 male and 20 female dyslexics attending a dyslexic clinic for remedial reading. Incidences of left-handedness and developmental language problems in relatives were also noted. Mean age for the total sample of British children was 12. Mean IQ was about 107 Verbal and about 110 Non-Verbal. The following tasks were administered: 1) peg moving, a time task in which subjects moved pegs from one row of holes to another; 2) observations of hand preferences for 12 actions; 3) observations of eye preferences, based on four sighting tasks; 4) foot preference, based on asking subjects to mime kicking a soccer ball; 5) personal assessment of disabilities, in which children were asked for an assessment of three aspects of their abilities; and 6) child's history and family history obtained from adults. Data on various measures were also reported for a sample of 1,480 controls. While incidences of mixed and left eye preference was about 42% for both dyslexics and controls, more dyslexics than controls showed left foot preference and mixed and/or left hand preferences. Right handed dyslexics tended to be more strongly right handed than controls, and the dextral extreme was overrepresented among dyslexics. Dyslexics tended to be slower than controls on the peg moving task. Dyslexics favoring the left hand tended to be slower than controls with both hands, but extreme right-handed children tended to be slower than left handed and mixed-handed children. This was particularly marked for girls. For boys, the L-R mean of the total dyslexic group was smaller than that of controls.

VAN DEN BOS, KEES P. Letter processing in dyslexic subgroups. In Rosemary F. Bowler (Ed.) *Annals of Dyslexia*, Vol. 34. Baltimore, MD: The Orton Dyslexic Society, 1984, 179-193.

Examines the strengths and limitations of three dyslexic subgroups in two experiments. The subjects in both experiments were 9- and 10-year-old Dutch children in special schools for children with learning difficulties. All subjects had a verbal or a performance score on the WISC-R above 90 and the dyslexic subjects all read at least two grades below grade level. On the basis of the Boder *Reading-Spelling Pattern Test*, 48 dyslexic children were classified as dysphonetic (22), dyseidetic (9), or mixed. There were 23 children in the control group. In Experiment 1, subjects listened to or read a sequence of four letters that was presented visually or orally. The children's task was to repeat the set of letters. Dyslexic children's scores were significantly lower than the controls, but the three dyslexic groups did not differ in scores or error patterns. In Experiment 2, subjects' task was to state if pairs of letters flashed on a screen were the same or different. Again, dyslexic subjects' scores were lower than controls, but the scores of the three dyslexic groups did not differ. It was concluded that the results of this study do not support the view of subgroups of dyslexics.

WOLF, MARYANNE. Naming, reading, and the dyslexias: A longitudinal overview. In Rosemary F. Bowler (Ed.) *Annals of Dyslexia*, Vol. 34. Baltimore, MD: The Orton Dyslexia Society, 1984, 87-115.

Examines the relation between various measures of word naming ability and reading skill in a longitudinal study. The data reported here are from an on-going study and include 115 children who were originally tested in kindergarten, of whom 98 still remained available for testing at the end of grade two. The basic purpose of the study was to test a model of the word-retrieval process, developed by the author, which includes three types of tasks: lexical retrieval, naming, and reading. Among the large battery of tests administered to assess these components are: the *Boston Naming Test*, the *Peabody Picture Vocabulary Test*, the *Rapid Alternating Stimulus* tests, the *Rapid Automatized Naming Tests*, the *Gray Oral Reading Test*, and the *Gates-MacGinitie Reading Tests*. Correlation coefficients between the 13 different naming tasks administered in kindergarten and oral reading and silent reading tests given in second grade were all statistically significant and ranged from .19 to .71. Good readers performed higher on all naming tasks than poor readers.

LARSEN, STEEN. Patterns of inverted reading and subgroups in dyslexia. In Rosemary F. Bowler (Ed.) *Annals of Dyslexia*, Vol. 34. Baltimore, MD: The Orton Dyslexia Society, 1984, 195-203.

Compares good and poor readers' ability to read normal and inverted text in two experiments. The subjects were Swedish second graders, 46 poor readers and 20 average readers. In Experiment 1, subjects read two matched lists of isolated words, one presented in upright position and one inverted. In Experiment 2, subjects' eye movements were recorded as they read meaningful sentences in upright or inverted position. Although the mean reading performance of both groups was generally reduced, the effect was neither as pronounced or as consistent for the poor readers as for the good readers. Both groups read inverted isolated words more slowly and with more errors than upright words, but good readers' performance was reduced by more than 50% whereas poor readers' performance was reduced by only 10%. Poor readers actually read meaningful sentences in inverted order more rapidly than sentences in upright order.

COOK, LOUISA. Misspelling analysis in dyslexia: Observation of developmental strategy shifts. *Bulletin of the Orton Society*, 1981, *31*, 123-134.

Presents a rationale for analyzing misspellings and sketches briefly a method for classifying spelling errors. Also describes the developmental changes in spelling of four disabled readers over a period of approximately three years. It is argued that the purpose of misspelling analysis is to assess what cognitive-linguistic information a child chooses to use or has access to while spelling. The method of spelling analysis proposed describes certain phonetic spellings as preconventional or developmentally immature and some as creditable efforts to represent the phonetic aspects of speech. The author has developed a Phonetic Spelling Rating Scale, which is not described in detail. It entails a phoneme-by-phoneme analysis of spelling errors and calculating the percentage of phonetic errors and percentage of preconventional phonetic errors to total phonetic errors. The author's analysis of the four case studies she selects to present lead her to conclude that shifts in the degree to which spelling is phonetically derived can be observed, and that the observed shifts are associated with transitions from preconventional to conventional spelling patterns.

Rubin, Hyla, & Liberman, Isabelle Y. Exploring the oral and written language errors made by language disabled children. In Elinor Linn Hartwig (Ed.) *Annals of Dyslexia,* Vol. 33. Baltimore, MD: The Orton Dyslexia, 1983, 111-120.

Analyzes the picture naming errors made by language disabled children and examines the relation between picture naming errors and performance on the spelling and reading tests of the *Wide Range Achievement Test* (WRAT). Picture naming was assessed with the *Boston Naming Test*. After the normal administration of the naming test, subjects were then asked to identify the picture when its name was pronounced. Subjects were 34 children, ranging in age from 4 to 13, who were enrolled in a self-contained public school language disability program. All subjects had normal intelligence. All 34 children scored significantly below average on the naming test. An analysis was then made of the errors made in naming pictures that had been recognized. Picture naming correlated .54 with WRAT reading and .24 with WRAT spelling. The correlation coefficient between WRAT spelling and the number of sounds common to the error and picture name was .78. The number of semantic errors also correlated highly, .81, with WRAT spelling. It was proposed that phonological deficiencies in the accuracy of stored representations and in short term memory coding are a likely explanation of the naming or word retrieval problems of this group.

Moats, Louisa Cook. A comparison of the spelling errors of older dyslexic and second-grade normal children. In Elinor Linn Hartwig (Ed.) *Annals of Dyslexia,* Vol. 33. Baltimore, MD: The Orton Dyslexia Society, 1983, 121-139.

Studies the phonetic accuracy, developmental level, and specific type of spelling errors of 27 normal second graders and 27 dyslexics. Dyslexic subjects had a grade placement between fourth and eighth, an average WISC-R Full-Scale IQ of 103, at least a two-year lag in reading, and a spelling grade between 2.6 and 3.6 on the *Stanford Dictated Spelling Test*. Second graders were average achievers and had similar spelling scores. Spelling errors were classified as preconventional phonically accurate, phonically accurate conventional, and phonically inaccurate. The spelling of the dyslexic and normal students did not differ significantly in phonic accuracy, level of maturity, or incidence of serial order confusion. Seventy percent or more of all errors were phonetically accurate, 80% were phonetically accurate when counting preconventional classifications. Only 2% of the dyslexic and 4% of the second graders made letter order errors.

Bradley, Lynette, & Bryant, Peter. Reading and spelling difficulties. In J.P. Das, R.F. Mulcahy, & A.E. Wall (Eds.) *Theory and Research in Learning Disabilities.* New York: Plenum Press, 1982, 189-200.

Discusses the role of phonological awareness in reading, and reading and spelling difficulties. Supports the importance of this skill by reviewing some of the authors' previous work and a case study of a 16-year-old boy.

Bransford, John D.; Stein, Barry S.; & Vye, Nancy J. Helping students learn how to learn from written texts. In Martin H. Singer (Ed.) *Competent Reader, Disabled Reader: Research and Application.* Hillsdale, NJ: Lawrence Erlbaum Associates, 1982, 141-150.

Reviews selected research to argue that less successful students fail to activate knowledge that can help them understand and remember new information, and are less able to assess their own level of comprehension and mastery. Instructional techniques to help students to comprehend and learn from written texts are described, as investigated in previously published research by the authors and others.

Brazell, Wayne, & Callaway, Byron. The relationship of writing to aspects of intelligence and reading. In George H. McNinch (Ed.) *Reading in the Disciplines.* Second Yearbook of The American Reading Forum. Athens, GA: The American Reading Forum, 1982, 48-50.

Investigates the relation among writing, reading, and intelligence with subjects (n = 79) referred to a university reading clinic. Pupils from grades one through six were tested on the WISC-R, the *Morris-McCall Spelling Test*, the *Woodcock Reading Test;* an instructional score on an informal reading inventory was calculated. Each child wrote at least three sentences about a picture, and the writing samples were scored for legibility and number of t-units. Correlation coefficients are reported among and between the various measures.

Accardo, Pasquale; Smith, Steven; Rhodes, Sharyn Simpson; & Capute, Arnold. Literacy achievement ratio: Predicting long term outcome of dyslexic readers. *Reading Improvement*, Spring 1985, *22*, 73-77.

Reports a follow-up evaluation of a group of 15 subjects nine years after being identified as dyslexics. At the time of follow-up, subjects ranged in age from 15.8 to 19.8. Administered were the *Peabody Individual Achievement Test* (PIAT), the *Gates-MacGinitie Reading Tests*, the *Wide Range Achievement Test* (WRAT), and the WAIS. Test results were averaged to compute a reading grade, a reading age, a reading quotient, a Monroe Reading Index, and a reading expectancy age for each subject. Reading Age at follow-up ranged from 9.7 to 17.3, with a mean of 12.5. Test results were compared with the initial assessment battery, and correlation coefficients computed between reading quotient predictions and current reading scores. Coefficients ranged from -.39 with PIAT/WRAT word recognition to +.07 with PIAT/Gates Comprehension. Mean reading quotient showed little change over the nine years. No single reading formula successfully predicted individual reading outcome.

Rounds, Jeanine C. Identification of problem readers in the regular classroom: How useful is it? In Delryn R. Fleming (Ed.) *Proceedings of the Fifteenth Annual Conference of the Western College Reading Association*, Vol. 15. Whittier, CA: Western College Reading Association, 1982, 56-60.

Informs college instructors of the readability level of their textbooks and those students in their classes reading at a level lower than that readability in order to determine if such information could decrease the attrition and failure rate of the class. Ten college instructors who taught a total of 28 classes participated. All the texts used in their classes were analyzed with the *Raygor Readability Graph*. Students in the classes were tested with the *Minnesota Reading Assessment*. Instructors were then told the names of those students whose test score fell below the textbook readability level. Instructors were encouraged to talk to their students about potential problems dealing with the text and to offer help or suggest tutoring at the college learning skills center. Attrition/failure rates from the instructors' classes for the previous three years were compared to attrition/failure rates during the experiment. Of the 28 classes, there was a significant reduction in attrition/failure rates for only eight. The results of a questionnaire completed by the instructors are also presented.

Marston, Douglas; Mirikin, Phyllis; & Deno, Stanley. Curriculum-based measurement: An alternative to traditional screening, referral, and identification. *The Journal of Special Education*, Summer 1984, *18*, 109-117.

Contrasts a pilot screening and referral procedure based on weekly performance measurement in reading, spelling, and written expression with a traditional teacher-referral procedure. Children referred by the two methods were compared with respect to referral rate, cognitive functioning, achievement level, social behavior, sex differences, and identification as learning disabled. Subjects were third through sixth graders from a small-town rural area within a fifty mile radius of a Midwest metropolitan area. Three groups were included. Group One included pupils from five elementary schools who scored at or below the 15th percentile on a measure of written expression. The 107 identified high-risk children were then tested weekly on measures of reading, spelling, and written expression. After 10 weeks of testing, pupils performing two standard deviations below local grade-level peers were referred. Group Two included those children referred via the traditional teacher referral process at the same five schools. Group Three were teacher referred children from a sixth school. Results indicated that repeated, curriculum-based measurement compared favorably with teacher referral. Approximately the same number of subjects were referred. Biasing factors appeared to be negated. The authors suggest that measurement of pupil performance on curriculum tasks is a feasible and efficacious approach to assessment in special education.

BRIDGE, CONNIE A., & TIERNEY, ROBERT J. The inferential operations of children across text with narrative and expository tendencies. *Journal of Reading Behavior,* Fall 1981, *13,* 201-214.

Examines the amount and kind of explicit and inferred information in the free and probed recalls of good and poor readers reading expository and narrative passages. Subjects were 36 third graders, 18 good and 18 poor readers. Good and poor readers were identified by teacher ratings, *Stanford Achievement Test* scores, and oral reading accuracy. Each subject read a 190-word fictional passage and a 153-word information article. Comprehension was assessed by free recall and probed recall. For all subjects, the first task was oral reading of the expository passage, the second was oral reading of the narrative passage, the third was the free and probed recall of the expository passage, and the last was the free and probed recall of the narrative passage. Recall responses were scored using a system of text analysis. Different text types did influence the amount and kind of information recalled for both good and poor readers. Both good and poor readers recalled more of the narrative text than the expository. Good readers tended to include most of the explicit information they knew on free recall and generated inferred information primarily in response to probes. The authors interpret this to mean that good readers may have greater metacognitive awareness. Analyses of individual readers indicated that there was considerable variability in recall of explicit and inferred information after reading the two types of text.

GARNER, RUTH, & ANDERSON, JUDITH. Monitoring-of-understanding research: Inquiry directions, methodological dilemmas. *Journal of Experimental Education,* Winter 1981-82, *50,* 70-76.

Tests poor readers' ability to detect informational inconsistencies in a one-paragraph story. Subjects were 24 intermediate grade pupils attending a summer reading clinic. All scored at or above grade level on word recognition and at least one year below grade level on comprehension. The paragraph was presented with one of three sets of directions, the sets varying in the degree of explicitness given to look for the inconsistency. Children were asked to report what was inconsistent. Free recall of the entire story was then requested. There was no significant difference among the three groups in detection of the inconsistency. There also appeared to be no significant difference among the three groups in free recall. It is suggested that there is an interaction between experimental reading materials and readers.

KATZ, ROBERT B.; HEALY, ALICE F.; & SHANKWEILER, DONALD. Phonetic coding and order memory in relation to reading proficiency: A comparison of short-term memory for temporal and spatial order information. *Applied Psycholinguistics,* September 1983, *4,* 229-250.

Contrasts good versus poor second grade readers on memory tasks for temporal order and spatial order. Identified on the basis of word identification and word attack subtests of the

Woodcock Reading Mastery Tests were 16 good and 16 poor readers. Mean raw score on the Woodcock was 144.4 for good readers and 80.3 for poor readers. Both temporal and spatial order recall consisted of presentation of a series of three letters accompanied by distractor tasks. Letters presented were premutations of the set F, P, and V. Recall for temporal-spatial pattern was also determined, using six patterns. Good readers made a greater proportion of phonic errors than visual errors, while poor readers showed a small difference in the opposite direction. Good readers were better than poor readers on both the temporal and spatial order tasks. However, the differences in the error patterns between the two groups supported previous findings that linked poor readers' memory deficiencies to reduced effectiveness of phonetic representation.

BAUER, RICHARD H., & EMHERT, JOHN. Information processing in reading-disabled and nondisabled children. *Journal of Experimental Child Psychology,* April 1984, *37,* 271-281.

Compares the immediate free recall of 11 reading-disabled and 11 nondisabled children for verbal information presented aurally at different rates. Subjects were matched for age (13-14 years), sex (20 males, 2 females), race, and intelligence. Reading-disabled children were from two to four years behind in reading as assessed by the *Stanford Diagnostic Reading Test.* Children listened to 12 lists of 10 words each presented via tape recorder. Lists were assigned randomly to presentation rates of one word per 1 sec, one word per 2 sec, and one word per 4 sec. Following the last word in each list, a tone cued children to recall the words. Reading-disabled children recalled fewer words than nondisabled. Analysis suggested that the lower recall of reading-disabled children was due to lower primacy effect and not to differences in the recency effect. Recall was significantly lower for disabled than nondisabled only on the first four serial positions. Slower presentation rates gave increased recall, but again only on the first few serial positions. This latter finding held for both groups.

BARCLAY, CRAIG R., & HAGEN, JOHN W. The development of mediated behavior in children: An alternative view of learning disabilities. In J.P. Das, R.F. Mulcahy, & A.E. Wall (Eds.) *Theory and Research in Learning Disabilities.* New York: Plenum Press, 1982, 61-83.

Reviews selectively the research supporting the notion that the child's memory development results from a growing ability to mediate behavior verbally. The paper is organized in four sections. In the first, learning disabilities are described in terms of deficiencies in the use of certain problem solving behaviors instead of central or peripheral structural deficits. The second section reviews literature dealing with the development of memory strategies and knowledge bases. The authors then summarize their own work on strategy use and metamemory in mentally retarded and learning disabled children. Presented also are questions and issues needing further research.

TORGESEN, JOSEPH K. Memory processes in reading disabled children. *Journal of Learning Disabilities,* June/July 1985, *18,* 350-357.

Considers the research related to memory problems in reading disabled children. Specific focus is given to three issues: the complexity and diversity of memory processes, the relation between memory and general intelligence, and the causal relation between memory disabilities and reading failure. The author notes that there is little known about the developmental course of phonological coding difficulties and that the relation between coding deficits and other types of phonological processing difficulties is not clear.

Sahu, Shantilata, & Devi, Gita. Reading ability and information-processing strategies. *Journal of Research in Reading*, February 1984, *7*, 33-40.

Compares information-processing strategies of 30 good and 30 poor readers, ages 9 to 11, from grade five of an urban school in India. Children were identified as good or poor readers on the basis of teacher rating and two types of errors on an oral reading task: errors of omission and commission, and errors of mispronunciation. The *Figure Copying Test*, the *Serial Recall Test*, and the Digit Span and Similarities subtests of the WISC were administered as measures of simultaneous and successive processing. Nonverbal intelligence was assessed by the *Raven's Coloured Progressive Matrices* (RPM). On all simultaneous and successive processing measures the poor readers scored lower than the good readers, even with intelligence partialled out. Good readers were better at simultaneous than successive processing, but good readers scored equally in both strategies.

Siegel, Linda S., & Linder, Bruce A. Short-term memory processes in children with reading and arithmetic learning disabilities. *Developmental Psychology*, March 1984, *20*, 200-207.

Notes the role of phonemic coding in short-term memory for 45 children with a reading disability, 38 children with an arithmetic disability, and 89 normally achieving children. Subjects, ranging in age from 7 to 13, were administered the *Peabody Picture Vocabulary Test* (PPVT), and the reading and arithmetic subtests of the *Wide Range Achievement Test* (WRAT). Additionally, three individual tasks were given: 1) visual-written (VW), 2) visual-oral (VO), and 3) auditory-written (AW). These tasks consisted of 5 or 6 letters. Reading and arithmetic disabilities were defined as a score below the 21st percentile on the WRAT; all children had PPVT scores of 80 or above. Younger reading disabled children showed no difference in recall of nonrhyming and rhyming letters, but normal children of the same age did. Older reading disabled children, as did normal counterparts, showed poorer recall of rhyming as opposed to nonrhyming letters. Children with arithmetic disabilities showed a similar pattern for visual presentation, but for auditory presentation, they resembled normal achievers in performance.

Singer, Martin H. Insensitivity to ordered information and the failure to read. In Martin H. Singer (Ed.) *Competent Reader, Disabled Reader: Research and Application*. Hillsdale, NJ: Lawrence Erlbaum Associates, 1982, 69-80.

Reviews studies investigating the relation between reading disability and insensitivity to ordered information. It is concluded that good, but not poor, readers utilize information provided by orthographic rules which specify ordered relations among letters and the order of letters within a word. Studies are cited which indicate that poor readers fail in many tasks involving ordered information, besides reading. Three explanations are discussed: a verbal deficit, a processing lag, and an absence of directional knowledge.

Cohen, R.L., & Netley, C. Short-term memory deficits in reading disabled children, in the absence of opportunity for rehearsal strategies. *Intelligence*, January-March 1981, *5*, 69-76.

Examines the possible causes of short-term memory (STM) difficulties in reading disabled (RD) children. States that there may be three possible causes of STM difficulties: inability to rehearse stimuli, inability to encode or recognize stimuli, and inability to encode serial stimuli into serial phonological patterns. To test these possibilities, RD and control children were compared on a STM task in which a long list of auditory stimuli were presented so rapidly that subjects could not rehearse. There were two groups of RD subjects: one with equal WISC-R Verbal and Performance scores, and one with Verbal IQ scores (average =

91) substantially below their Performance IQ scores (average = 113). There were also two control groups. All subjects were 10-11 years old and the average Full-Scale IQ score of each of the four groups was in the range of 98-110. STM stimuli were 10 lists of auditory digits varying in length from 16 to 26 items. The lists were presented at five presentation rates ranging from 2.3 digits/sec to 13.2 digits/sec. The measured variable was subjects' ability to recall the last three digits presented. Both RD groups recalled significantly fewer digits than the control groups. Concludes that STM deficits exhibited by RD children are due to an inability to encode serial items in the form of serial phonological patterns.

Cotugno, Albert J. Cognitive controls and reading disabilities revisited. *Psychology in the Schools*, October 1981, *18*, 455-459.

Conducts a replication study to examine the relation between a cognitive control termed field articulation and reading disability. Also examines the relation of focal attention and reading. Field articulation is described as the ability to focus and attend to specific, relevant information in the presence of irrelevant, distracting or contradictory information. Focal attention is a child's ability to scan broad areas of information in his environment. Subjects of the experiment were 17 reading disabled (RD) children and 17 nondisabled readers from the same school and matched in age and grade. Reading was assessed with the *Stanford Achievement Test* and the *Woodcock-Johnson Psychoeducational Battery*. The average reading retardation of the RD subjects was 1.5 years with a range of retardation of 1 to 3 years. Students in the nondisabled group read at or above grade level. The average age of the two groups was 8.7 years. The average *Slosson Intelligence Test* IQ for the RD group was 99; for the nondisabled group, 110. Subjects were given two tasks. The first was designed to measure focal attention, the *Scattered Scanning Test* (SST). This is a measure of ability, to scan a field of designs and mark only those designated. The second was a test of field articulation: the *Fruit Distraction Test* (FDT). Time to complete the tasks was the dependent variable. There was no significant difference between the two groups on the focal attention task, the SST. The RD group performed significantly more slowly than the nondisabled group on all aspects of the field articulation test, the FDT.

Steeves, K. Joyce. Memory as a factor in the computational efficiency of dyslexic children with high abstract reasoning ability. In Elinor Linn Hartwig (Ed.) *Annals of Dyslexia*, Vol. 33. Baltimore, MD: The Orton Dyslexia Society, 1983, 141-152.

Compares four groups of 27 children each on measures of abstract reasoning, mathematics computation and memory: dyslexics with high (above the 90 percentile) abstract reasoning (DH); dyslexics with average abstract reasoning (DA); nondyslexics, mathematically gifted children (NH); and nondyslexic children in a regular grade-level mathematics program (NA). Abstract reasoning was assessed with the *Ryan's Standard Progressive Matrices* (RSPM). The DH children were screened with the RSPM from a group of 134 dyslexic children attending independent schools, and all remaining subjects were matched to this group on age (10 to 14) and sex. Two other tests were administered: the *Comprehensive Testing Program* (Mathematics Subtest) and *The Wechsler Memory Scale*. Abstract reasoning correlated with computation .58. The DH group scored significantly lower than the NH group on both memory and computation, but the two groups did not differ on abstract reasoning. The DA group scored significantly lower than the NA group on all tests. The computation scores of the DH and NA groups were not significantly different. Both dyslexic groups scored below the both nondyslexic groups on memory.

Das, J.P.; Bisanz, Gay L.; & Mancini, Gabriel. Performance of good and poor readers on cognitive tasks: Changes with development and reading competence. *Journal of Learning Disabilities*, November 1984, *17*, 549-555.

Examines the performance of superior, average, and backward readers from second, fourth, and sixth grades on five cognitive tasks to determine if cognitive task performance improves with age and with reading ability. The subjects were selected so that backward readers in Grade 4 were matched on word-reading with average readers in Grade 2 and the backward readers in Grade 6 were matched with average readers in Grade 4. The five cognitive tasks included *Memory-for-Designs*, *Trail Making Test*, and three memory span tasks, including measurement of digit span and confusable and nonconfusable letter spans. A significant F-ratio ($p < .0001$), indicating increase in children's performance across the five tests with grades, was consistent with a developmental trend in reading competence. No differences were obtained between matched groups, which supported a developmental lag rather than a deficit position in the interpretation of reading backwardness.

Das, J.P.; Snart, F.; & Mulcahy, R.F. Reading disability and its relation to information integration. In J.P. Das, R.F. Mulcahy, & A.E. Walls (Eds.) *Theory and Research in Learning Disabilities*. New York: Plenum Press, 1982, 85-109.

Identifies four conclusions regarding the cognitive skills of reading disabled children, reports the results of a study to examine the relation of reading and cognitive abilities in average readers, and discusses remediation procedures. The four conclusions the authors begin with are that the disabled reader: is characterized by a verbal deficit, suffers from defective memory control processes, has a deficit in phonological coding, and has problems organizing strategic behavior. The study compared 15 fourth- and 15 sixth-grade reading disabled (RD) children to 45 fourth- and 45 fifth-grade average readers. Reading ability was determined with the *Edmonton Elementary Reading Tests*, decoding and comprehension. Six tests were administered to all subjects: *Figure Copying*, *Auditory Serial Recall*, *Trail Making*, *Visual Search*, *Planned Composition*, and *Syllogistic Reasoning*. Normal and RD pupils differed significantly on all six tests. Average readers for each grade were divided into above and below median groups for both decoding and comprehension; each of the resulting four groups were compared on the six tests. Only *Planned Composition* significantly differentiated the above and below median readers in all four groups. It was suggested that remediation should be based on the cognitive processes of the RD child.

Downing, John. Cognitive clarity and reading disabilities. In J.P. Das, R.F. Mulcahy, & A.E. Walls (Eds.) *Theory and Research in Learning Disabilities*. New York: Plenum Press, 1982, 135-153.

Discusses and reviews research on the initial stages of skill acquisition with special reference to reading. Divides the learning of a skill into three phases: cognitive (initial), mastering, and automaticity. It is argued that the degree and speed to which a learner masters a skill is dependent upon the novice learner obtaining a clear understanding of what it is that has to be learned. This process of learning what has to be learned is termed cognitive clarity. The functional and featural aspects of written language should be presented to children for the purpose of cognitive clarity. A discussion of these issues as related to reading and learning disabled children is included.

LESGOLD, ALAN M., & RESNICK, LAUREN B. How reading difficulties develop: Perspectives from a longitudinal study. In J.P. Das, R.F. Mulcahy, & A.E. Walls (Eds.) *Theory and Research in Learning Disabilities.* New York: Plenum Press, 1982, 155-187.

Reports and discusses the preliminary findings of a longitudinal study of the word recognition and oral reading abilities of 46 third graders. Reading ability was tested with the *Metropolitan Achievement Test.* Children were divided into high, medium, and low skill groups on the basis of second and third grade reading comprehension scores. Skills assessed each time a child reached a "landmark point in the reading curriculum" were: speed of word vocalization, speed of semantic judgments, simple speed of performance (reaction time), and oral reading speed and accuracy. The three groups did not differ in speed of performance. The low reading group scored significantly lower on speed of word vocalization and speed of semantic judgment. They also read both familiar and unfamiliar reading passages at slower rates and with a greater error rate. The major differences in types of errors were than the low readers more often substituted words that shared neither stem nor ending with the target word, they omitted more words, and they inserted fewer words. Additional analyses revealed that efficiency of word processing has the clearest causal influence on comprehension. Also presented were more preliminary data in which similar tests were administered to 40 children who received a code-emphasis reading program. Though there were some differences in the pattern of scores, the low comprehenders also performed slowly on the various reading tasks. Concludes that lack of word processing efficiency may lie at the heart of reading disability.

VOLGER, GEORGE, P.; DEFRIES, J.C.; & DECKER, SADIE N. Family history as an indicator of risk for reading disability. *Journal of Learning Disabilities,* December 1984, *17,* 616-618.

Quantifies the changes in a child's risk of developing subsequent reading disability as a function of the reading ability of the parents. Self-report was used to determine the incidence of reading disability among parents of a group of 174 reading disabled children (male = 130; female = 44) and a control group of 182 (males = 130; female = 41). Reading-disabled children from three Colorado school districts were included if they met the following criteria: an age of between 7.5 and 16 years; reading performance equal to or less than one-half of grade-level expectancy; a standardized IQ test score of at least 90; no known emotional, behavioral, or neurological impairments; no uncorrected visual acuity deficits; and normal auditory acuity. Probands were matched to control children of normal or superior reading ability by age, sex, and school district. All families were middle to upper middle class Caucasian. Parents of all subjects completed a questionnaire on their reading habits, preferences, and ability. One question asked parents to indicate if they had had any serious difficulty in learning to read. The resulting frequencies of reading disability reports were subjected to inverse probability analysis to estimate a child's risk based solely on parental reading ability. Results indicated there was a considerable increase (by a factor of from about 4 to over 13) in the risk for a child to exhibit reading disability if a parent reported a difficulty in learning to read. As a predictor, parental reading ability compared favorably with other risk indicators.

BUILDER, PHILIP. The crucial role of parents in helping children with reading. In Jonathan Anderson & Kate Lovett (Eds.) *Teaching Reading and Writing to Every Child.* Adelaide, South Australia: Australian Reading Association, 1983, 190-198.

Reports findings collected from administering the *Parent Reading Survey* to 78 mothers from one region of Australia. Differences in responses of mothers of good and poor readers are noted. Both good and poor readers' mothers felt that understanding rather than accuracy was the sign of a good reader. While 90% of good readers were reported as reading to their mothers, 68% of poor readers did so. Of the mothers of good readers, 94% said that their child was confident in their approach to learning, while only 12% of poor readers' mothers reported their child as confident. Almost two-thirds of mothers felt that if there was an error in reading, the child should be stopped immediately and the error pointed out. Most mothers (79%) felt that children should do most of their reading aloud, rather than silently.

DeFries, J.C., & Baker, Laura A. Colorado family reading study: Longitudinal analyses. In Elinor Linn Hartwig (Ed.) *Annals of Dyslexia,* Vol. 33. Baltimore, MD: The Orton Dyslexia Society, 1983, 153-162.

Compares the developmental rates in reading and symbol processing speed of reading disabled and matched control children. Also examines the accuracy of predicting reading performance of reading-disabled children over a five-year test-retest interval. Subjects were 69 matched-pairs who were part of the original 125 pairs of the Colorado Family Reading Study. The present 69 pairs were volunteers and had a mean age of 14.8. Achievement was assessed with the reading and spelling subtests of the *Peabody Individual Achievement Test.* Symbol processing speed was obtained on the Coding B subtest of the WISC-R and the *Colorado Perceptual Speed Test:* Rotatable Letters and Numbers. The WISC-R was also given. Both groups made significant gains in reading and symbol processing speed over the five years, but the differences in reading between the two groups did not change. Previous reading status did not correlate significantly with current reading status for disabled readers, but did for the control group. In a multiple regression analysis, however, previous reading achievement for disabled readers did predict later reading achievement significantly when parents' reading ability was taken into account.

Shelton, Terri L.; Anastopoulos, Arthur D., & Linden, James D. An attribution training program with learning disabled children. *Journal of Learning Disabilities,* May 1985, *18,* 261-265.

Evaluates the effectiveness of an attribution training program with 32 fourth- and fifth-grade children, all identified as experiencing learning helplessness. Children were identified using the *Intellectual Achievement Responsibility Questionnaire* (IAR), the *Effort versus Ability Failure Attribution Scale* (E/A), a 14-item helplessness rating scale completed by classroom teachers for each child, and the total grade equivalent scores on the reading subtest of the *Science Research Associates Achievement Series* (SRA). The final sample consisted of 16 learning disabled (LD) and 16 non-LD children who were assigned randomly to either the Attribution Training or the Assessment Control conditions. Attribution Training children received two one-half hour sessions per week for three weeks. In each training session, pupils were asked to read aloud 16 sentences. Preceding the reading, children were given positive statements to make about their efforts. The IAR, E/A, and *Coopersmith Self-Esteem Inventory* were administered one day following and two weeks after completion of the program. Attribution Training subjects were significantly more persistent on the reading task, showed significant increases in effort attributions for failure as well as more internal attributions for achievement situations than did controls. Gains were maintained at follow-up.

Migden, Stephen. Issues in concurrent psychotherapy-remediation. In Elinor Linn Hartwig (Ed.) *Annals of Dyslexia,* Vol. 33. Baltimore, MD: The Orton Dyslexia Society, 1983, 275-288.

Reviews selected literature related to concurrent psychotherapy and academic remediation and discusses the practical issues of such concurrent treatment. The issues discussed are: understanding and dealing with the child's feelings of confusion about the concurrent treatments, understanding resistances to either treatment, the nature of the child's dual relation to both the psychotherapist and the remedial specialist, and issues involved in the teacher-therapist interaction. Provides extensive references to specific cases to demonstrate these issues.

Frederiksen, John R. Sources of process interactions in reading. In Alan M. Lesgold & Charles A. Perfetti (Eds.) *Interactive Processes in Reading*. Hillsdale, NJ: Lawrence Erlbaum Associates, 1981, 361-386.

Reports a series of studies designed to examine three types of process interaction: word analysis, discourse analysis, and integrative. The basic procedure in all experiments was the comparison of good and poor readers. One generalization drawn from the accumulated results was that young adult readers who differ widely in skill as determined by a standard test of reading do not differ in their ability to decode orthographic forms successfully, find referents for pronouns, or perform any of the other skill tasks used to analyze components of reading. Rather it is processing time that consistently distinguishes levels of expertise in this population. A second general conclusion was that when text materials are increased in difficulty, the processing time increases significantly more for poor readers than for good readers. Also concludes that the distinction in this efficiency or automaticity is found in all three of the process interactions investigated.

Rayner, Keith. Eye movements, perceptual span, and reading disability. In Elinor Linn Hartwig (Ed.) *Annals of Dyslexia*, Vol. 33. Baltimore, MD: The Orton Dyslexia Society, 1983, 163-173.

Reviews selected recent research regarding the control of eye movements during reading, perceptual span and the eye movement patterns of developmental dyslexics. Describes the characteristics of the visual field during reading and the general methodology of eye movement studies. Reviews the processes involved in determining where to look next in reading and when to move the eyes from one location to the next. States that there are two types of dyslexics: auditory-linguistic, who have normal eye movement patterns, and visual-spatial, who have abnormal eye movement patterns. Argues that these abnormal eye movements are not the cause of the dyslexia, however, as the oculomotor mechanism of visual-spatial dyslexics is normal.

Witte, Pauline L. Should we teach comprehension or word identification strategies? An examination of the difference model for poor readers. In George H. McNinch (Ed.) *Reading Research to Reading Practice*. Third Yearbook of The American Reading Forum. Athens, GA: The American Reading Forum, 1983, 43-46.

Reviews research concerning the interaction of word identification strategies and reading comprehension. An examination is made of definitions of word proficiency, automaticity theory, and research concerning problems encountered by good and poor comprehenders, and a critique made of the practice of using standardized test scores to identify readers who seemingly are good word readers but poor comprehenders. It is argued that students who are poor comprehenders but good word identifiers are not really as proficient at word identification as good comprehenders.

Hutchinson, Ann. The relationship between word-finding ability and reading with an emphasis on the language-learning-disabled child. *Special Education in Canada*, 1983, *57*(3), 27-32.

Reviews studies dealing with the relation between word-finding problems (dysnomia, anomia, and amnestic aphasia) and reading for elementary-aged language and learning disabled children, and offers implications for programs and treatments.

Morrison, Frederick J. Word decoding and rule-learning in normal and disabled readers. *Remedial and Special Education*, May/June 1984, *5*(3), 20-27.

Focuses on data from several unpublished experiments investigating the word decoding problems of disabled readers. Three major variables—rule conditionality, rule consistency, and word consistency—were considered means to test the hypothesis that reading disability is a function of the failure to master the irregularities of the English language system. In one study reviewed, 20 fifth and sixth grade disabled readers with a mean reading level of 3.4, 20 normal readers matched by chronological age, and a control group of younger children with a mean reading level of 3.5, were required to pronounce 64 words as accurately and rapidly as possible. Although disabled readers were not significantly different in their reaction times to consistent versus inconsistent words, they had significantly longer reaction times to words representing inconsistent rules. Further, disabled readers took longer to pronounce words with conditional rules (in which pronunciations are contingent upon variation in the graphemic environment). In the second reported experiment, 8 disabled and 8 normal readers, matched by chronological age, pronounced 40 words that varied in consistency and frequency. For disabled readers, reaction time to inconsistent words was longer than with consistent words for both high- and low-frequency words, although the effect was greater with low-frequency words. For normal readers, inconsistent words took longer to pronounce only when the words were low-frequency. For the third study, data are reported on the ability of 36 normal and disabled readers in grades four through six to learn 12 symbol-word pairs in four conditions, varying in the nature of the association of symbol to word (one-to-one symbol-word pair or rule-based association), and the consistency of the association (consistent versus inconsistent). Findings confirmed those of word-decoding studies, showing disabled readers do experience greatest difficulty with correspondences that are rule-based or conditional and also inconsistent.

Snyder, Frederick R.; & Butter, Eliot J. Performance of good and poor readers at two grade levels on an auditory cognitive style task. *Contemporary Educational Psychology,* January 1985, *10,* 1-13.

Examines the relation that exists between performance on the *Auditory Cognitive Style Test* (an auditory match-to-sample task) and reading ability, and compares the strategy-utilization differences between skilled and less-skilled readers. A sample of 64 first and third graders enrolled in parochial schools were classified as good or poor readers based on teachers' judgments. All were administered the *Auditory Cognitive Style Test,* and the *Peabody Picture Vocabulary Test*-Revised to obtain a measure of IQ. Poor readers committed significantly more errors and exhibited shorter response latencies on the cognitive style task than did good readers. Poor readers also demonstrated inefficient strategies for successful performance. The researchers suggest that good reading skills, as well as successful performance on the auditory task, require a certain degree of planning and self-monitoring absent in the poor reader.

Brown, R. Michael; Sanocki, Thomas; & Schrot, David. Phonetic coding in marginally competent readers. *The Journal of General Psychology,* July 1983, *109,* 87-94.

Assesses short-term recall in 16 children classified as marginal readers and 16 children designated as good readers. Mean chronological age was 8½ years, and mean *Peabody Picture Vocabulary Test* score was 110 for marginal readers. Teacher evaluation and comprehension scores on the *Stanford Diagnostic Test* were used to classify reading ability. Children were presented letter sequences high or low in phonetic similarity in either an auditory or visual mode. Recall was noted. Marginal readers gave less evidence of phonetic coding than good readers when letter presentations were auditory.

KEE, DANIEL W.; WORDEN, PATRICIA E.; & THROCKMORTON, BARBARA. Sentence-demonstration ability in reading-disabled vs. normal college students. *Bulletin of the Psychonomic Society,* May 1984, *22,* 183-185.

Uses a sentence demonstration task to examine short-term memory processing differences between 14 reading disabled and 14 normal readers, all college students. Disabled readers were reading at sixth-grade level as determined by scores on the *Peabody Individual Achievement Test.* Stimuli were printed English words and logographs resembling Chinese or Japanese ideographs. Subjects were tested individually and were given 10 minutes to study 14 logographs representing English nouns, verbs, and prepositions. After the study period, subjects were tested on the logographs until they reached a criterion of two errorless trials. Normal college readers required fewer trials than did disabled readers in reaching criterion. Following logograph learning, subjects were asked to read aloud eight sentences varying from two to eight words in length and to demonstrate the meaning with toys. Sentences were meaningful or nonsense. Performance of normals was superior to disabled. Meaningfulness and presentation mode did not differ for the two populations. However, as sentence length increased, mean differences favoring normals over disabled readers increased.

NICHOLAS, KAREN B., & ACOSTA, JR., ENRIQUE. Effects of context in simple stimulus identification: Reading-related differences. *Perceptual and Motor Skills,* August 1984, *59,* 71-76.

Presents 12 third graders and 18 fourth graders with a task requiring them to predict the random occurrence of left or right arrows on a screen. Children were designated as skilled, average, or less skilled readers based on the average of their scores on the Reading and Language sections of the *Metropolitan Achievement Test.* Subjects indicated their prediction both verbally and by pressing one of two keys, the stimulus was presented either immediately, .75 sec., or 2.0 sec. later, and 1 sec. later the prompts for the next trial were presented. Skilled readers were faster than the other two groups. For all groups, RTs to incorrectly predicted stimuli were slower than RTs to correctly predicted stimuli. RTs to correctly predicted stimuli were not significantly different for less skilled and average readers; but RTs of less skilled readers were significantly slower than that of average readers for incorrectly predicted stimuli. The authors posit that reading-related differences in context effects may be related to differences in basic processing and may not be due solely to deficits in linguistic processing.

SINGER, MARTIN H. Context use and reading disability. In Martin H. Singer (Ed.) *Competent Reader, Disabled Reader: Research and Application.* Hillsdale, NJ: Lawrence Erlbaum Associates, 1982, 55-68.

Reviews research on semantic context-use skills and reading ability to argue that an insensitivity to context does not predict poor reading. Three major arguments are advanced to support this position. First it is argued that differences that have been found between good and poor readers in their use of context could reflect differences in the reading experience of the two groups. Second, it is suggested that a third factor, such as vocabulary or intelligence, may be sufficient to explain differences in context-use. Third, investigations of context-use are criticized for inadequate control of the decoding abilities of good and poor readers.

BREUER, HELMUT. Prophylactic diagnosis and the acquisition of written language. In Karl Tuunainen & Alain Chiaroni (Eds.) *Full Participation. Proceedings of the Second European Conference on Reading, Joensuu, 2-5 August 1981, Finland.* Joensuu, Finland: University of Joensuu, 1982, 7-15.

Elaborates on a prophylatic conception of verbosensomotor skills at preschool age as presymptoms of reading and writing acquisition. Reports that 665 German children in their last preschool year were diagnosed for their verbosensomotor level using the *Differentiation Test Breuer/Weuffen*. Results were related to reading, orthography, and mathematics levels at the end of the first class. Children were categorized by level of verbosensomotor performance as good, medium, or poor. Almost all later failures in reading and writing were from the 19.6% of children determined to be verbosensomotorically retarded. Additional data indicated that poor school success occurred when verbosensomotor retardations occurred simultaneously with physiological retardation as determined by the time of contraction of the articulatory muscles in performing simple linguistic tasks. Social-pedagogical determinants of retardation were also noted.

WILLIAMS, NOEL H. The effect of relaxation training on reading performance in poor readers. In Karl Tuunainen & Alain Chiaroni (Eds.) *Full Participation. Proceedings of the Second European Conference on Reading, Joensuu, 2-5 August 1981, Finland.* Joensuu, Finland: University of Joensuu, 1982, 407-419.

Reviews research and refers to a pilot study examining the effects of relaxation training on the reading performance of poor readers. The pilot study was carried on for 11 weeks with the first three weeks used as a baseline period. The 18 subjects were described as in a special class designed for individuals of average intelligence who are at least one academic year behind their peers due to difficulty in school. The *Wide Range Achievement Test* (WRAT) was used to assess word recognition and the *Gates-MacGinitie Reading Tests*, Level E, assessed comprehension. Two groups of nine each were formed, an experimental and a control group, each with three low, three average, and three good readers. Final data were available for six experimentals and eight controls. Relaxation therapy was given daily to experimentals just prior to reading class. Daily progress records were maintained, and the WRAT and Gates given as posttests. Experimentals showed improvement on both daily records and posttest scores: controls did not.

NEVILLE, M.H., & PUGH, A.K. *Towards Independent Reading*. London: Heinemann Educational Books, 1982.

Reports on a series of studies conducted in England addressing reading at the middle school level (ages 9-11). Comprehensive study of 20 better and 20 poorer readers in their first year of middle school is presented in one chapter. The *GAP* cloze test of silent reading comprehension was used to identify the 40 children. Additional tests administered included *Reading Test AD* and a booklet version of the *GAP* test. The *AD* and *GAP* were given as pre- and posttests. The pretest of the *AD* was a better predictor of reading development during the year than was the *GAP*. The poorer readers as a group made greater progress during the year than did the better readers. When errors on the *GAP* were analyzed, poorer readers made more errors that were suitable only to the preceding context. A book use task indicated that poorer readers were inferior in application of reading skill and inflexibility of approach.

DECKER, SADIE N., & CORLEY, ROBIN P. Bannatyne's "genetic dyslexic" subtype: A validation study. *Psychology in the Schools*, July 1984, *21*, 300-304.

Evaluates a classification scheme for identifying disabled readers based on WISC-R data. In particular, nine of the WISC subtest scores are reclassified into three measures: conceptual, spatial, and sequential. An earlier study identified a "genetic subtype" of reading disability as recognizable by a Spatial > Conceptual > Sequential profile of scores. A total of 140 reading disabled children and their matched controls were individually administered a battery of tests which included: the reading, spelling, and mathematics subtests from the *Peabody Individual Achievement Test*, the spatial relations subtest of the *Primary Mental Abilities Test*, the *Colorado Perceptual Speed Test*, the *Colorado Expressive Fluency Test*-Letters and Categories, the *ETS Identical Pictures Test*, and the WISC-R. Family patterns of reading disability were obtained from parent questionnaires. As a group, the reading disabled children exhibited the Spatial > Conceptual > Sequential profile, while the control group did not. A total of 47% of reading disabled children and 28% of the controls exhibited the Spatial > Conceptual > Sequential ordering of scores. A significantly higher proportion of reading disabled children than controls had parents and siblings with reading problems. However, family data failed to support the concept that a specific genetic dyslexic subtype of reading disability could be diagnosed by the profile. Rather, a familial pattern of reading disability was present for the whole sample of disabled readers, regardless of the child's ability profile.

BEECH, JOHN R., & HARDING, LEONORA M. Phonemic processing and the poor reader from a developmental lag viewpoint. *Reading Research Quarterly,* Spring 1984, *19,* 357-366.

Investigates the possibility of a developmental lag in the phonemic processes in poor readers and also looks at the relation between phonemic-processing skill and reading style. Three groups of children served as subjects: 57 poor readers, 44 children of the same reading age, and 35 children of the same chronological age. All tested normal in IQ on the *Raven's Progressive Matrices and Vocabulary Scales.* The *Schonell Graded Word Reading Test* was used to match on reading. Phonemic processing and memory were assessed using the *Wepman Auditory Discrimination Test,* the Digit Span Test of the WISC-R, a rhyme recognition task, rhyme production task, word memory task, a phonemic peg task, and an odd word out task. A reading style index was calculated on the median reaction times for nonsense, regular, and exception words. Levels of performance of poor readers on the various measures of phonemic processing and short-term memory were similar to those of younger children of the same reading age and poorer than those of normal readers of the same chronological age. Little evidence was found for support of a relation between reading style and phonemic processing.

LOPER, ANN BOOKER. Accuracy of learning disabled students' self-prediction of decoding. *Learning Disability Quarterly,* Spring 1984, *7,* 172-178.

Contrasts learning disabled (LD) children with age-matched nondisabled children on their accuracy in predicting and evaluating their performance on a decoding task using nonsense words. In the first of two experiments, 30 LD children (average age, 9.7 years) and 20 nondisabled children (average age, 9.89 years) were shown three lists of nine nonsense words each and asked to predict their ability to pronounce each word. The three lists differed in pronounceability (high, low, and unpronounceable). Using IQ as a covariate, a repeated measures analysis of variance was conducted followed by separate analyses for each word list. The two groups differed markedly in their confidence in being able to pronounce the high pronounceable word list, with LD children evidencing less confidence than nondisabled children. LD children also did not distinguish between the low pronounceable and unpronounceable lists in their predictions, but nondisabled pupils did. In Experiment 2, subjects were given 25 nonsense words selected from the Word Attack subtest of the *Woodcock Reading Mastery Tests* and asked to predict their ability to pronounce them, to decode each one, and then to evaluate the accuracy of their performance. Two groups, 19 LD and 14 nondisabled, were then formed. Subjects were matched on age, proportion of words answered correctly, and range between the easiest word on which an error was made and the most difficult item correctly pronounced. When word lists were thus equalized and individualized according to difficulty, no differences were noted between the two groups in their prediction for either accurately or inaccurately decoded words.

Lovett, Maureen W. A developmental perspective on reading dysfunction: Accuracy and rate criteria in the subtyping of dyslexic children. *Brain and Language*, May 1984, *22*, 67-91.

Details an initial investigation exploring accuracy and rate as criteria for the subtyping of developmental reading disorders. Children between the ages of 8 to 13 who were referred for specific reading dysfunction were administered a battery of tests and then subtyped as having problems with decoding accuracy or with reading rate. A total of 19 children were selected for each subtype sample. A series of oral and written language skill tests were individually administered. Twelve children in each sample were also given a measure assessing effective working memory for read versus listed to material. Results showed the two groups to be consistently different on all accuracy based measures of written language skill, including word recognition, indices of contextual decoding, and written spelling. Oral reading rate did not differ for the two groups, nor did reading comprehension. Accuracy disabled children were deficient in their understanding of oral language structure and in their ability to associate unfamiliar pseudowords and novel symbols.

Carner, Richard L. Physiological variables and reading disability. *Journal of Research and Development in Education*, Summer 1981, *14*(4), 24-34.

Reviews research on five physiological variables and their relation to reading: prenatal and postnatal factors, visual acuity, auditory acuity, haptic ability, and genetic factors. Among the findings reviewed are: that there is a significant relation between haptic abilities and reading at the primary grade levels, but differences in haptic functioning disappears as the child grows older; that monozygotic twins show a high degree of concordance (85 to 100%) in reading disability, while there is considerably less concordance for dizygotic twins (29%); that the evidence for genetic factors impacting reading performance is growing. Concludes that the research relating physiological factors and reading disability are equivocal mainly because of the limitations or basic design flaws in the research. Argues that all the factors reviewed certainly affect human beings, and that educators must begin to give more attention to these factors in understanding the whole child.

Hagin, Rosa A.; Beecher, Ronnie; & Silver, Archie A. Definition of learning disabilities: A clinical approach. In J.P. Das, R.F. Mulcahy, & A.E. Wall (Eds.) *Theory and Research in Learning Disabilities*. New York: Plenum Press, 1982, 45-57.

Describes the general characteristics of seven subgroups of learning disabled children. The children were identified by the authors in 1977 by screening and diagnosing 650 New York City children born in 1971. Of this group, 192 were found to be vulnerable to learning disabilities. The seven subgroups are labeled: specific language disabilities, neurological deviations, motor problems, attention deficits, neurological findings, general immaturity and other. Provides some case histories and discusses the difficulties in defining learning disabilities.

Keough, Jack. The study of movement learning disabilities. In J.P. Das, R.F. Mulcahy, & A.E. Walls (Eds.) *Theory and Research in Learning Disabilities*. New York: Plenum Press, 1982, 237-251.

Examines the current views on movement development as related to learning disabled children. Also proposes that researchers need to investigate movement learning disabilities as a primary learning problem rather than as a secondary concern in relation to other learning disabilities. Topics covered in the review include perceptual-motor training programs, the role of movement, the development of movement control, and movement learning disabilities.

Knights, Robert M. Computer-aided learning: Performance of hyperactive and learning disabled children. In J.P. Das, R.F. Mulcahy, & A.E. Walls (Eds.) *Theory and Research in Learning Disabilities.* New York: Plenum Press, 1982, 201-213.

Examines the effects of three feedback contingencies on the computer-aided learning (CAL) of three types of learning tasks by three different groups of learners. The subjects were an unknown number of hyperactive, learning disabled, and normal children at an unspecified age or grade level. Children were identified on the basis of the *Myklebust Pupil Rating Scale,* the *Connors Teachers' Questionnaire,* and the *Peabody Picture Vocabulary Test.* The three CAL tasks were paired-associate, discrimination, and abstract concept identification. Feedback was right answer, wrong answer, or positive. No significant differences in feedback methods were found. The three groups differed in degree of learning, and there was a significant difference in the three learning tasks, but there was not a significant learner by task interaction.

Halperin, Jeffrey M.; Gittleman, Rachel; Klein, Donald F.; & Rudel, Rita G. Reading-disabled hyperactive children: A distinct subgroup of attention deficit disorder with hyperactivity? *Journal of Abnormal Child Psychology,* March 1984, *12,* 1-14.

Compares pure hyperactive children and mixed hyperactive/reading disabled children on a battery of behavioral, IQ, and neuropsychological measures. From an initial group of 221 boys and 20 girls, ages 6 to 12, identified as hyperactive by teachers, parents, or clinic observation, a group of 22 met the criteria for mixed hyperactive/reading disabled and 62 met the Pure group criteria. The Mixed group had to be reading disabled relative to their chronological age and the Full-Scale WISC IQ. Pure group children had to have reading and arithmetic scores on the *Wide Range Achievement Test* within 10 points of their Full-Scale IQ. In addition to demographic data, hand and eye preference was determined, and the following measures administered: WISC or WISC-R, *Raven's Coloured Progressive Matrices, Matching Familiar Figures* (MFF), *Porteus Mazes, Children's Embedded Figures, Purdue Pegboard* (PP), *Developmental Test of Visual-Motor Integration, Goodenough-Harris Drawing,* Visual Sequential Memory Test of the *Illinois Test of Psycholinguistic Abilities,* and a paired associates test. The Mixed group was about 15 months older than the Pure group. No significant differences were found relative to eye or hand preference or on psychiatrist's ratings of aggression. The Mixed group had a significantly lower Verbal IQ and higher mean performance IQ. The Mixed group made significantly more errors on the MFF and had poorer scores on the PP than the Pure group. Overall, the data did not indicate clear differences between the two groups.

Benton, Arthur L. Dyslexia and spatial thinking. In Rosemary F. Bowler (Ed.) *Annals of Dyslexia,* Vol. 34. Baltimore, MD: The Orton Dyslexia Society, 1984, 69-85.

Reviews research related to impairment in spatial thinking as a possible cause of developmental dyslexia. Topics covered include right-left orientation, visuomotor performance, visuoconstructive performance, and finger recognition. Concludes that, although some dyslexic children do demonstrate spatial disabilities, there is little evidence to support the existence of a visuospatial type of developmental dyslexia.

IV-15 Sociocultural factors and reading

Durkin, Dolores. Poor black children who are successful readers: An investigation. *Urban Education*, April 1984, *19*, 53-76.

Collects school and family data on 23 poor black children identified as successful readers (scoring at or above grade level on the *SRA Assessment Survey* at the end of grade five) to see what factors might be contributing to the children's school success. Subjects were administered the WISC-R and were interviewed for their perceptions of their success. Interviews were conducted with teachers, principals, and parents, classrooms were observed, and school records were also examined. Among the many findings were: subjects were of average intelligence (mean full-scale IQ of 101.6); subjects had frequently transferred schools; principals knew little about the subjects or their families unless the subjects had been in trouble; parents were supportive of schools and concerned about their children; subjects were helped at home by parents or other family members; subjects liked reading, especially reading stories; parents and other family members had helped subjects learn to read at home; and parents and subjects anticipated the subjects' attending college.

Bloome, David, & Green, Judith. The social contexts of reading: A multi-disciplinary perspective. In B.A. Hutson (Ed.) *Advances in Reading/Language Research*, Vol. 1. Greenwich, CT: JAI Press, 1982, 309-338.

Argues from a research basis that reading should be considered a cognitive linguistic process embedded in multiple social contexts, some of them operating simultaneously and some related hierarchically. Research from a number of disciplines is cited to support this conceptualization and to illustrate the kinds of social contexts which have been studied. Additionally, the paper describes research on reading as a social activity. One body of literature in this latter vein suggests that when patterns of social organization used for classroom reading instruction match those found in the culture of the home, learning is facilitated.

Anderson, Jonathan. How do cultural and motivational factors affect reading difficulty? *International Research in Reading*, Winter 1984, *1*(1), 5-8.

Describes an attempt to assess some factors which affect the readability of materials developed for use with nonnative speakers of English in the Pacific region. Materials were originally written by teachers following constraints which would permit passages to be written at 10 different levels. Ten groups of children from whom standardized reading test scores were available were given tests to obtain cloze estimates of difficulty for each of 192 selections. Passages showing a marked difference between cloze difficulty level and constraint readability level were then presented to children who were asked what they thought about the passages. Comments were analyzed and seven factors emerged as influencing readability: 1) writing style, 2) reading interests and preferences, 3) the immediate and familiar, 4) teacher's knowledge of children, 5) abstract and descriptive writing, 6) cultural conflict, and 7) the story's appeal.

Manning, Maryanne M., & Manning, Gary L. Early readers and nonreaders from low socioeconomic environments: What their parents report. *The Reading Teacher*, October 1984, *38*, 32-34.

Attempts to identify some differences between early readers and nonreaders from low socioeconomic backgrounds. Subjects were 10 kindergarten early readers paired by age, sex, and race with 10 kindergarteners who were not reading. Early readers were identified by teachers by means of the *Classroom Reading Inventory*. Structured interviews were conducted with parents to obtain data about each child's development. The two groups did not differ in age of walking and talking. Nine early readers were reported as liking quiet games but only three nonreaders' parents indicated their children liked quiet activities. Eight early readers' parents and two nonreaders' parents stated that their children like to look at books or magazines; all early readers but only four nonreaders were reported as liking to play with older children. Nonreaders watched TV an average of 17.4 hours per week and preferred cartoons and Sesame Street; early readers average 13.2 hours per week and tended to select different types of programs. Eight parents of early readers checked books out of the library; only one of the nonreaders' parents did so. Educational background of the two groups of parents was similar. Eight parents of early readers and four of the nonreaders' parents reported that they read for pleasure.

SHIELDS, PORTIA; GORDON, JESSICA G.; & DUPREE, DAVID. Influence of parent practices upon the reading achievement of good and poor readers. *Journal of Negro Education*, Fall 1983, *52*, 436-445.

Describes the knowledge, beliefs and practices related to reading of low income black parents and their children, and determines the relation between those opinions and practices and children's reading achievement. Thirty-two low income adults, ages 29 to 36, comprised the parent sample. In addition, 20 male and 15 female children, ages 8 to 13, were designated as good or poor readers according to their scores on the *Spache Diagnostic Reading Scales*, the *Howard University Phonics Test*, and the *Morrison-McCall Spelling Scale*. Data were collected through parent interview, child interview, and parent questionnaire. Survey questions were designed to tap parents' knowledge, beliefs, and practices concerning their children's reading achievement, home activities related to reading, and home resources which support academic achievement. Children's perceptions of themselves as learners and of their parents' practices were also obtained. The variables from parents' responses that were significantly related to children's success were parents' knowledge about whether or not their child was a good reader, and the parent practices of buying educational materials, praising, sacrificing time, and fostering responsibility. Only the parent belief in the importance of owning reference tools significantly related to practice and the child's reading level. Successful readers were significantly more aware of their reading strength than poor readers. Significant parental practices according to the children's ratings were giving books and giving rewards for good grades (for good readers), and making school visits (for poorer readers).

IV-16 Reading interests

BURGESS, SUSAN A. Reading but not literate: The ChildRead survey. *School Library Journal*, January 1985, *31*, 27-30.

Reports finding of a questionnaire investigating what children know about children's literature and how they find out about it. The data are based on a three-page questionnaire and a series of half-hour taped interviews. A total of 253 children in grades 3-8 completed the questionnaire, but only responses of children in grades 4-7 were tabulated, because of the small sample in grades three and eight. Children selected books on the basis of appearance, author, or recommendation. Three sources of recommendations for reading were relied on: adults, other children, and the reader himself. Interview subjects claimed to read 2-5 books a week. Most showed a preference for one kind of reading, but all read a variety of materials. The usefulness of the library varied with the librarian an important element in how often it is used. Teachers were not viewed as resources for recreational reading. Book talks by knowledgeable adults were seen as highly desirable.

CHIU, LIAN-HWANG. Children's attitudes toward reading and reading interests. *Perceptual and Motor Skills,* June 1984, *58,* 960-962.

Investigates the attitudes of children towards reading and school, and their reading interests. Subjects were boys (n = 572) and girls (n = 559) in grades one through six. They completed a form which asked them to indicate whether they did or did not like school, did or did not like reading, and what they liked to read about. Girls liked reading more than boys ($p < .001$). There was a strong relation between liking/not liking reading and liking/not liking school ($p < .001$).The most liked categories of reading interests were animals (35%), make believe stories (15%), mystery (9%), and people (9%). Interests varied with grade level and sex.

WOLFSON, BERNICE J.; MANNING, GARY; & MANNING, MARYANN. Revisiting what children say their reading interests are. *Reading World,* December 1984, *24*(2), 4-10.

Collects data on the reading preferences of minority and nonminority fourth grade pupils and compares results with findings from a 1960 study. Subjects were 415 boys and girls from Birmingham, Alabama. The instrument consisted of 130 items, 10 in each of 13 categories. More boys than girls indicated a preference for adventure, machines and applied science, and animals. More girls than boys indicated a preference for the categories of family life and children, fine and applied arts, and multi-ethnic. In both studies, sex differences were noted in the categories of adventure, machines and applied science, and fine and applied arts. Boys in the current study showed a stronger preference in personal problems and less interest in physical science than did boys in the 1960 report. Girls in the 1984 study indicated greater preference in family life and children and less preference in animals than did girls in the 1960 study. More nonminority than minority children indicated preferences in adventure and animals; more minority children checked preferences in personal problems, multi-ethnic, and fine and applied arts than did nonminority children.

SCHON, ISABEL; HOPKINS, KENNETH D.; EVERETT, JAMIE; & HOPKINS, B.R. A special motivational intervention program and junior high school students' library use and attitudes. *Journal of Experimental Education,* Winter 1984/1985, *53,* 97-101.

Investigates the effects of a special school library-initiated and library-based motivational program on junior high school students' library use, library/librarian attitudes, and reading attitudes. Seventeen Arizona school librarians (female = 16, male = 1) with a median of 7 years of experience volunteered to participate. In each of their schools one-half of an eighth-grade class was randomly assigned to receive treatment, while the other half served as the control group. The treatment group received weekly 45-minute sessions related to specific library activities on each of six topics: sports, science fiction/fantasy, crafts/hobbies, almanacs, World War II, and scary stories. Dependent variables were 1) whether the student used the library; 2) the number of times each student used the library during the follow-up data collection period; 3) student attitudes toward the library/librarian, as gauged by their responses to the *Library Attitude Scale;* and 4) student responses on the *Reading Attitude Scale.* Library usage for both experimental and control groups was self-monitored through a library sign-in procedure. The treatment was found to have a significant effect on library use and library/librarian attitudes but no effect on reading attitudes. Although there were large differences among the librarians, there was no significant interaction between treatments and librarians.

Bradley, John M.; Ames, Wilbur S.; & Mitchell, Judy N. The effects of text adaptation on rated appeal and difficulty. *Reading Psychology*, 1984, *5*(3-4), 185-191.

Investigates the comparative ratings by low achieving readers of high interest low vocabulary adaptations and their original versions. Subjects were 224 seventh graders, 171 eighth graders, 129 ninth graders, and 52 tenth graders in Title I reading programs in a Southwestern city. Ethnic composition was 76% Hispanic, 10% white, and 14% nonwhite. Mean grade equivalent score in Total Reading on the *California Achievement Test* was 6.4 Each subject was asked to read silently one of eight stories, three of which were original versions and five of which were adaptations of those stories. The story was then rated for appeal and difficulty on five 9-point Likert scale items. With all stories combined, adaptations were rated as easier than the original versions. Combining all stories to test version effects resulted in a finding of no significant difference in appeal between original and adapted versions. One story in three versions was rated higher in appeal than all other story versions except for one version of another story. The authors contend that the quality of the story is an important factor affecting appeal.

Newton, D.P. The use of textbooks for advanced-level GCE courses in physics, chemistry and biology by sixth-form students. *British Journal of Educational Technology*, January 1984, *15*, 43-51.

Conducts a questionnaire survey of the physics, chemistry, and biology textbooks by sixth-form students in British secondary schools. Final results were based on 80 physics students, 81 chemistry students, and 51 biology students. Marked variation among students was reported in the amount of text read; large variations also were found from school to school in the average amount of texts read. In physics, slightly more than one-third of the main class text was read on the average; for chemistry and biology, the average was about one-half of the text read.

Mitchell, Judy Nichols; Bradley, John M.; & Ames, Wilbur, S. Original versus adapted short stories: The perceptions of adolescent readers. In Jerome A. Niles & Larry Harris (Eds.) *New Inquiries in Reading Research and Instruction*. Thirty-first Yearbook of The National Reading Conference. Rochester: The National Reading Conference, 1982, 77-80.

Investigates adolescents' perceptions of text difficulty, story interest, and story preference for original and adapted stories. Subjects ($n=522$), who were seventh and eighth grade students, read the original and an adapted version of one of two stories. The original versions appeared in anthologies for junior high readers, and the adapted versions in high interest-low vocabulary materials. For one story the original and its adaptation were at the second grade level, and the two adaptations at the second and fourth grade level, according to the *Fry Readability Formula*. Subjects were randomly assigned to read an original and an adaptation of the same story, with the order of presentation counterbalanced across conditions. They then completed a rating inventory containing three pairs of nine-point Likert-type ratings concerned with difficulty, interest, and preference. It was found that the order of presentation made a difference, in that for both the preference and interest items and for both original and adapted versions, the second story read received higher ratings ($p < .01$). Difficulty ratings reflected actual readability differences ($p < .01$). In addition, original versions were rated as more difficult than their adapted versions.

Mendoza, Alicia. Reading to children: Their preferences. *The Reading Teacher*, February 1985, *38*, 522-527.

Reports results of a survey of 520 elementary school children's (male = 267; female = 252) preferences when being read to. Twenty-five teachers enrolled in a graduate children's literature course designed a questionnaire and administered it in their respective kindergarten through sixth grade classrooms. The questionnaire focused on the desire to be read to, preference as to the size of the group in which one is read to, home reading environment, the subjects' practices when reading to others, what children wanted to know about a book before it is read, attitudes toward being questioned about read-aloud books, sustained interests in books read aloud, and the favorite aspects of being read to. The large majority of respondents indicated that they like to be read to. Seventy-five percent of primary boys and 89% of the primary grade girls reported being read to at home, while approximately 50% of the intermediate children said they were read to at home. Across all age groups and both sexes, reading in the home reportedly occurs less than once a week. All children preferred being read to in groups. Predictably, the percentage of those reading to other children increased with age. Primary children's responses indicated that they would like to know an author's name (51%), a story summary (60%), and whether the book has illustrations (61%) befor reading. Ninety-three percent of the responses indicated that children wanted to read or look at a book after it has been read aloud.

SELLEN, MARY K., & JIROUCH, JAN. Perceptions of library use by faculty and students: A comparison. *College & Research Libraries*, July 1984, *45*, 259-267.

Compares faculty expectations of student library use with the students' perceptions of their actual library use and whether expectations and use are affected by college division, student class level, or class level taught. Two equivalent questionnaires were administered to faculty and students in the colleges of Arts and Humanities, Social and Behavioral Sciences, and Natural Science and Engineering at one state university. Student questionnaires were given over a two-week period to every student using the college library. One hundred twenty-nine surveys were returned, representing 6% of the student population. Thirty-seven percent of the faculty completed and returned the survey. Results of the survey were presented in frequencies and analyzed by the chi-square statistic. Faculty and students differed significantly ($p < .05$) on four of the seven questions pertaining to library orientation and use of materials, including differences in faculty expectations and students' perceptions of required library use, in their preferences for source material, in their preferences for recently published periodicals, and in the type of material they used in research and class preparation. Students preferred books to periodicals, preferred recently published periodicals, and mentioned encyclopedias and dictionaries as viable source materials. Both groups were evenly divided on library orientation, both indicated similar assignments using materials, and both preferred current books. Results also indicated that the differences were not affected by college division, class level taught, or student class level.

IV-17 Attitudes and affect toward reading

TILLMAN, CHESTER E. Bibliotherapy for adolescents: An annotated research review. *Journal of Reading*, May 1984, *27*, 713-719.

Focuses on bibliotherapy research related to junior and senior high school ages. Studies, primarily from 1964 on, are abstracted. A general summary and recommendations for solving research problems follow.

CRAMER, EUGENE H. Reading comprehension and attitude of high and low images: A comparison. In Jerome A. Niles & Larry A. Harris (Eds.) *New Inquiries in Reading Research and Instruction*. Thirty-first Yearbook of The National Reading Conference. Rochester: The National Reading Conference, 1982, 37-41.

Investigates the relations among reading comprehension, attitude toward reading, and mental imagery. Subjects ($n=30$) were 11th grade students of average or slightly below average reading ability, selected randomly from language arts classes in two high schools. Attitude toward reading was determined by the *Estes Reading Attitude Scale*. Prose comprehension was assessed on two 300-word passages, one of a high image-evoking nature, and one of a low image-evoking nature. The two comprehension measures for each passage were a five-item short-answer test, and modified cloze test in which every fifth word was deleted from the second paragraph. A questionnaire was administered concerning students' use of mental imaging during the prose comprehension tasks, and on this basis subjects were divided into high, moderate, and low imagers. Mean scores for each group were compared on all the measures, and high imagers scored better than low imagers on the short-answer test for the low image-evoking passage (p level not reported). The moderate imagery group scored lower than the other two groups on the attitude scale ($p < .05$).

Hoffman, James V.; Kastler, Lesa A.; Nash, Marcia F.; & Daly, John. Students' beliefs and attitudes about oral reading instruction. In Jerome A. Niles & Larry A. Harris (Eds.) *New Inquiries in Reading Research and Instruction.* Thirty-first Yearbook of The National Reading Conference. Rochester: The National Reading Conference, 1982, 140-144.

Investigates the attitudes and beliefs of second grade pupils about oral reading instruction. Subjects (n = 207) were randomly selected from 23 classrooms in 10 schools. Each child was administered the *Slosson Oral Reading Test* (SORT) and interviewed individually over a three-month period in the fall semester. The interview instrument consisted of 80 questions which were broken down based on item content and inter-item correlation patterns into eight areas: general attitude, oral reading attitude, perceived ability-silent reading, perceived ability-oral reading, teacher's role, audience effects, negative effects, and home reading models. A multiple regression analysis showed that three predictors (perceived ability in oral reading, teacher role, and audience effects) accounted for most of the variance in SORT scores. High ability readers' responses were compared with those of low ability readers. Both groups thought of themselves as good silent readers (95% and 83%), but the low ability group did not often regard themselves as good oral readers (87% and 50%). Both groups preferred the teacher to help them figure out a word when reading rather than provide the answer (89% to 11%). The group differed in their liking for reading aloud in a group (90% and 56%), but were similar in their liking of reading to the teacher alone (83% and 74%). Other results are also reported.

Schon, Isabel, Hopkins, Kenneth D.; Everett, Jamie; & Hopkins, B.R. The effects of a special school library program on elementary students' library use and attitudes. *School Library Media Quarterly,* Spring 1984, *12,* 227-231.

Notes the effects of a special school-library-initiated and library-based program on library use, library attitudes, and reading attitudes of sixth-grade pupils in 11 elementary schools. Library media specialists in 40 schools were invited to participate in the study; 11 librarians accepted. A guide was given to each librarian outlining a program of activities over a 20-week period. Half the subjects in one sixth grade in each school were assigned an experimental group and provided with 30 minutes weekly of special treatment related to 10 recommended topics and follow-up activities. Control subjects had study hall or worked in special projects with their classroom teacher. Data collected included number of times the library media center was used and the purpose for using it, attitude toward the school library/librarian (LA), and reading attitude (RA). LA and RA data were collected by means of a 38-item attitude questionnaire. Experimentals significantly exceeded controls in library media center use measures on both classroom-related and nonclassroom-related use. Mean differences between the two groups on the two attitude measures were significant only at the .10 level. Girls made greater use of the library than boys for nonclassroom-related purposes.

Barnett, Shirley, & Alston, Jean. When ny nan has finished with it: Observations on the literary background of first year secondary pupils. *Remedial Education,* November 1984, *19,* 165-169.

Identifies the similarities and differences between the literary background and reading habits of successful and failing readers in a medium-sized, midlands British school. Ten remedial readers (five boys and five girls) were selected as representative and matched for age, sex, and housing background with 10 normal readers. Both groups were administered a reading habits questionnaire, a structured interview based on responses to the questionnaire, and the *Spooncer Group Literacy Assessment.* ALl of the subjects except one claimed to have read a book in the last four months and to own books of their own. Less able readers, however, knew no authors and owned books considered immature for their age. Thirty percent of the less able group reported receiving advice about reading from their parents, while 70% of claimed that they were dependent on teachers. Seventy percent of the able group reported dependence on parents for reading advice while 30% indicated teachers. All of the able group held library memberships, while only 40% of the less able readers did.

Meeks, Jane Warren, & Morgan, Raymond F. Insights into reading behaviors and other variables affecting school performance of marginal students. In George H. McNinch (Ed.) *Reading Research to Reading Practice.* Third Yearbook of The American Reading Forum. Athens, GA: The American Reading Forum, 1983, 21-23.

Investigates the processes in the urban environment which constrain the reading-learning growth of inner-city students. Subjects (n=48) were 9th- and 10th-grade students who were marginal students, i.e., students who had earned Ds and Fs in less than half of their classes during a nine-week grading period. Subjects were equally divided in terms of sex and racial category (black/white). Each subject was interviewed individually about their background and school performance. Among other findings were that 60% of subjects indicated they liked reading and 50% read out of school. However, 80% did not enjoy reading in school. Academic problems generally began at the junior-high school, and marginal students appeared to have external locus of control.

Evans, Peter, & Gleadow, Norman. Literacy: A study of literacy performance and leisure activities in Victoria, B.C. *Reading-Canada-Lecture,* December 1983, *2*(4), 3-16.

Explores the relation between reading and writing ability and use of leisure time for 78 Grade 11 students and 66 adult residents of middle socioeconomic status. Subjects were administered the grade 12 instrument developed for the 1977 British Columbia Reading Assessment, the writing assessment task developed for the British Columbia Language Assessment, and an adaptation of the 1978 Statistics Canada Survey of Leisure Time Activities. Stepwise regression analyses identified the best predictors of reading and writing scores. Leisure activities were calculated, and correlations were computed among leisure activities and literacy performance variables. Selective findings include: performance of students and adults were similar on both reading and writing tests; neither leisure reading nor leisure writing was a strong predictor of performance on literacy tests; adults spent more time on leisure reading than did students; and attitudes toward reading appeared more favorable than toward writing. Television viewing was not strongly related to performance on the literacy tests.

Paludi, Michele A., & Strayer, Lisa A. What's in an author's name? Differential evaluations of performance as a function of author's name. *Sex Roles,* February 1985, *12,* 353-361.

Asks 300 introductory psychology students, half of each sex, to rate one of the three articles for nine dimension on a 5-point scale. The three articles were from psychology of women, education, and politics, and were designated as feminine, neutral, and masculine, respectively. The authorship was attributed to a male, a female, an author with a sexually ambiguous name, or were unauthored. After completing the evaluation, subjects who received the unauthored or sexually ambiguous versions were to indicate whether they thought the author was male or female and the reasons for their choice. Articles attributed to a female author were evaluated least favorably, while those attributed to a male were rated most superior. The pro-male bias was present even for articles in feminine and sex-neutral fields. The bias was more in evidence when subjects perceived a sexually ambiguous author's name to be female instead of male.

CARSELLO, CARMEN J., & Creaser, JAMES W. Dimensions of reading attitudes related to age. In George H. McNinch (Ed.) *Reading Research to Reading Practice.* Third Yearbook of The American Reading Forum. Athens, GA: The American Reading Forum, 1983, 14-15.

Investigates the attitudes of persons over 50 years of age to reading. Subjects, who were males (n=55) and females (n=159) from a large urban area, were administered the *Survey of Elderly Reading Attitudes.* Respondents were asked to agree or disagree with 75 items concerning attitudes and behavior difficulties involved in reading. Six subscales were derived relating to physical ability, reading interest, comprehension, reading as a method of coping with loneliness, the ability to read directions, and interest in religious materials. No sex differences were observed. Physical ability, interest in reading, and comprehension declined with age ($p < .001$). The use of reading material to cope with loneliness and interest in religious materials increased with age ($p < .001$).

ELLIOTT, JOAN B. Development of a scale assessing the attitudes of college students toward reading. In George H. McNinch (Ed.) *Reading Research to Reading Practice.* Third Yearbook of The American Reading Forum. Athens, GA: The American Reading Forum, 1983, 49-50.

Describes the development and validation of a scale for assessing the attitudes of college students to reading. Undergraduates (n=50) wrote four or five statements reflecting their personal attitude toward reading. The researcher synthesized these into 50 statements concerned with school related reading, recreational reading, and general reading. A questionnaire using the statements and a Likert scale was administered to undergraduates (n=86). A coefficient alpha of .92 was obtained on the 50 items, the correlation of 35 items between .40 and .60, and deemed sufficient for inclusion on the final instrument. Of these, 26 items were chosen to keep the final scale brief for ease of administration and scoring.

HUMMEL, JEFFREY W. Normative data for eight dimensions of reading attitudes: Canadian public school students. *Psychology in the Schools,* October 1984, *21,* 433-436.

Provides normative data for a sample of Canadian pupils on the *Survey of Reading Attitudes.* The survey was administered to 195 fourth-grade, 226 fifth-grade, and 192 sixth-grade children in one city. Pupil answer sheets were machine scored for the eight dimensions of attitude included in the survey. Reliability estimates for the eight dimensions ranged from .72 (Alternative Learning Modes) to .89 (Reading as Enjoyment).

IV-18 Personality, self-concept, and reading

Carbo, Marie. Research in learning style and reading: Implications for instruction. *Theory into Practice*, Winter 1984, *23*, 72-76.

Reviews recent research relating learning style to reading achievement under five categories: 1) environmental preferences, 2) perceptual strengths/ preferences, 3) perceptual development, 4) comparisons across grade levels, and 5) comparisons across achievement levels. Under each area, research is briefly summarized and implications are presented. A general conclusion reached is that learning styles differ significantly across grade and achievement levels. When individuals are instructed to read through their learning styles, both achievement in and attitudes toward reading show significant improvement.

Reiff, Judith C. Investigating reading preferences, reading attitudes and teacher observations of third graders. *Reading Improvement*, Spring 1985, *22*, 29-33.

Describes and approach to identifying learning style differences in elementary school children. Three third grade classrooms (n=65) in a rural southern community were administered the *Learning Style Inventory*, the *Reading Style Inventory*, and the *Reading Attitude Inventory.* Additionally, teachers completed the *Learning Style Preference Checklist* on each child. Chi Square analysis indicated that more boys than girls preferred learning with teachers or other adults whereas more girls preferred learning with peers. Teachers thought children preferred to learn to read by visual and auditory modes, but children chose kinesthetic mode. Although pupils held a generally favorable attitude toward reading, playtime and television viewing were preferred over reading.

Paradise, Louis V., & Block, Cielle. The relationship of teacher-student cognitive style to academic achievement. *Journal of Research and Development in Education*, Summer 1984, *17*(4), 57-61.

Notes whether the amount of congruity between teacher and pupil learning style is related to achievement in reading and mathematics. From each of 20 self-contained fourth grade classrooms, five boys and five girls were randomly selected to serve as subjects. All children were given alternate forms of Level I of the *Comprehensive Test of Basic Skills* (CTBS) at the beginning and end of the school year. Both children and teachers were administered the *Embedded Figures Test* (EFT). Degree of similarity between teacher and pupil cognitive style was calculated by subtracting each pupil's score from his/her teacher's score on the EFT. Distance scores were then ranked, and the distribution was divided into two groups, high distance and low distance. In addition to cognitive style distance, sex and race were used as blocking variables. An analysis of covariance was utilized on the post-CTBS reading and math raw-scores with pre-CTBS raw scores as the covariate. Pupils with low distance between their EFT scores and their teachers' scores obtained significantly higher reading achievement scores than did high distance children. Math achievement scores showed a similar but nonsignificant trend.

Readence, John E., & Hayes, David A. The effect of cognitive style on reading and writing in science materials. In George H. McNinch (Ed.) *Reading in the Disciplines.* Second Yearbook of the American Reading Forum. Athens, GA: The American Reading Forum, 1982, 55-57.

Investigates the effect of cognitive style on children's discourse processing operations. Subjects were eighth grade pupils (n=70) who were at or above the 70% national percentile on the reading section of the *California Achievement Test.* Children who scored between one and nine on the *Group Embedded Figures Test* (GEFT) were classified as field-dependent; those scoring 10 or more, as field-independent. Two science paragraphs were written in either short, choppy kernel sentences or with syntactic characteristics exhibited by eighth graders. Subjects rewrote the first form of one passage to make it better and then read and wrote recalls of the second form of the other passages. Rewritings were rated using a syntactic density score developed by other researchers. Recalls were scored against a template text base. Among other findings, field-independent subjects produced syntactically more complex reconstructions of both passages than did field-dependent subjects ($p < .05$), and also recalled more text propositions ($p < .05$). A stepwise regression analysis showed the best predictor of performance in manipulating language structures to be the GEFT score.

Burton, Elizabeth, & Sinatra, Richard. Relationship of cognitive style and word type for beginning readers. *Reading World,* October 1984, *24,* 65-75.

Attempts to determine whether the field dependent/independent (FD/FI) dimension of cognitive style affects the recognition of maximal and minimal contrast words. Forty-two middle and lower middle class suburban kindergarten children, whose scores on the *Metropolitan Reading Readiness Tests,* Word Recognition subtest, and the *Cognitive Abilities Test* did not differ, were judged as field dependent or field independent based on the degree to which they could recognize embedded figures on the *Children's Embedded Figures Test.* All subjects were presented with minimal contrast (e.g., bat, hat) and maximal contrast (e.g., party, circus) nouns with teaching procedures held constant. A 2 x 2 repeated measures design with 21 subjects per cell showed that field-independent kindergarteners learned significantly more words than field-independent children. In addition the subjects as a group learned significantly more maximal than minimal contrast words. There was, however, no significant interaction effect between cognitive style and word type. An analysis of covariance with letter recognition scores as the covariate again yielded significant differences between the mean word recognition scores of field dependent/independent subjects. The researchers suggest that early readers would profit from maximal contrast, high frequency words as first reading experiences.

Clark, Lesley A., & Halford, Graeme S. Does cognitive style account for cultural differences in scholastic achievement? *Journal of Cross-Cultural Psychology,* September 1983, *14,* 279-296.

Compares the effects of cognitive style and psychometric test intelligence on the scholastic differences which had been observed between Aboriginal and Anglo-Australian children. Fifty urban Aboriginal primary school children were matched for age, sex and socioeconomic status with 50 Anglo-Australian children. Each group consisted of 21 males and 29 females with a mean age of 10.0. In addition 45 rural Aborigines, with a mean age of 10.0 and comprising the total Aboriginal enrollment of a small geographically isolated town were matched by age, sex and father's occupation with 45 Anglo-Australian children in the same school. All subjects were tested on five measures of cognitive style, two measures of nonverbal intelligence, and two measures of school achievement: a graded word reading test and a mathematics test. Culture and location had significant effects on both reading and mathematics. Aboriginal and rural backgrounds were both associated with lower levels of achievement. Multiple regression analyses results indicated that psychometric test intelligence was a more powerful predictor of achievement in reading and mathematics than was cognitive style. Psychometric intelligence accounted for the effects of culture and location on school achievement, whereas style accounted only for the effects of location on reading achievement. When the effects of style were partialled out, psychometric intelligence still significantly predicted reading and mathematics results, but with intelligence partialled out, style predicted neither.

DAVEY, BETH, & LASASSO, CAROL. The interaction of reading and text factors in the assessment of reading comprehension. *Journal of Experimental Education,* Summer 1984, *52,* 199-206.

Examines the effects of selected reader and task variables on the reading comprehension performance of 50 prelingually, profoundly deaf and 61 hearing subjects of comparable reading skill level (5.0 to 7.9 on the Reading Comprehension subtest of the *Stanford Achievement Test*). Subjects were blocked by cognitive style scores on the *Group Embedded Figures Test* into field dependent or field independent groups. Subjects read 12 informational passages of approximately 250 words, written at fifth-grade reading difficulty, over a four-day period. Question tasks involved selected-response format (multiple choice) or constructed-response format administered under lookback and no-lookback conditions. Four questions were text explicit, and four were text implicit. All main effects except cognitive style were significant, favoring hearing subjects, selected-response questions, lookback conditions, and text-explicit information. Significant three-way interactions were found for hearing state, cognitive style, and lookback condition; for hearing state, question type, and information type; for cognitive style, question type, and lookback condition; and for question type, lookback condition, and information type.

WAUTERS, JOAN K.; MERRILL, JANET M.; & BLACK, DAVID R. Exploring learning styles of minority students: An Alaskan study. In Delryn R. Fleming (Ed.) *Journal of College Reading and Learning,* Vol. 17. Whittier, CA: Western College Reading and Learning Association, 1984, 101-111.

Tests for the learning styles and verbal skills of incoming freshmen at the University of Alaska at Juneau (UAJ) in order to determine the learning patterns and preferences of Alaskan Native Indians. Subjects were 200 high school seniors who were to enroll at UAJ; 112 were Alaskan Natives and 88 non-Natives. Subjects were also classified as urban or rural. All subjects took two tasks of verbal skills developed by the College Board: the *Written English Expression Placement Test* (WEEPT), and the *Reading Placement Test* (RPT). They also took a learning styles test that results in a profile on 21 subtests: the *Productivity Environmental Preference Survey* (PEPS). The profiles of the Native and non-Native subjects on PEPS were similar, though differences were found on 5 subtests. Both groups scored more than one standard deviation away from the PEPS norm on 10 subtests. Their scores were highest on motivation, intake, persistence, and visual. On the verbal skills tests, RPT and WEEPT, non-Natives scored at a slightly above average level while Natives scored well below average. The difference between the two groups was statistically significant. In both populations, the urban subjects scored significantly higher than rural subjects, but there was no interaction between race and community size.

CAPLAN, BRUCE, & KINSBOURNE, MARCEL. Cerebral lateralization, preferred cognitive mode, and reading ability in normal children. *Brain and Language,* November 1981, *14,* 349-370.

Examines the relation of verbal dichotic listening asymmetry, cognitive strategic preference, and reading ability in young children. Subjects were 53 girls and 52 boys ranging in age from 6-2 to 11-0 with an average age of 8-8. Six tests were administered to each subject: 1) a short version of the *Edinburgh Handedness Inventory;* 2) a dichotic listening task in which six stop consonants were paired with short "a" and the resultant syllables matched with each other to result in 30 pairs of stimuli; 3) a word-shape sort test given as a measure of cognitive style; 4) the Vocabulary, Information and Block Design Subtests of the WISC-R; 5) the *Gray Oral Reading Paragraphs;* and 6) the *Wide Range Achievement Test* (WRAT). Cognitive style was correlated with the Gray (.44) and with the WRAT (.47) for the 105 subjects. Preferences for a visual/verbal approach was found to relate to reading performance. Cognitive style also was significantly correlated with a right-ear advantage on the dichotic listening task and was not significantly correlated with IQ or hand preference.

Hicks, Reta D.; Monroe, Eula E.; Roenker, Daniel L.; & Carroll, Jeri A. Cognitive tempo: A factor in the acquisition of reading skills? *Florida Reading Quarterly,* December 1984, *21*(2), 32-35.

Cites research into the relation between cognitive tempo and the acquisition of reading skills. It is concluded that reflective children are more likely to be successful in learning to read than are impulsive children.

Learner, Kathy M., & Richman, Charles L. The effect of modifying the cognitive tempo of reading disabled children on reading comprehension. *Contemporary Educational Psychology,* April 1984, *9*, 122-134.

Describes two groups of fifth grade pupils identified as poor or average readers according to their scores on the *California Achievement Test*, one group of whom were taught to use a reflective cognitive style. All subjects were of average intelligence, with IQ scores on the WISC-R ranging from 85 to 120. Subjects were divided into an experimental group (n=14 poor, 8 average readers) and a control group (14 poor, 11 average readers). Tests assessing cognitive style and reading comprehension preceded and followed training. Kagan's *Matching Familiar Figures Test* (MFF) and the *Gates-MacGinitie Reading Tests* were used before and following treatment. The experimental members were provided eight 30-minute training sessions over four weeks in which they were taught to delay their responses and to use more efficient search and scanning techniques. Controls received the same materials to complete but no explanation. Data analyses were based on the 30 subjects who completed all testing. Experimental pupils displayed an increase in their response latencies and a decrease in errors on the MFF, while controls failed to demonstrate a change. Training affected only poor readers in the experimental group. Poor readers in the experimental group also were the only group to show improvement on the vocabulary and comprehension subtests of the Gates-MacGinitie, but only vocabulary score was significantly improved.

Hicks, Reta D.; Monroe, Eula E.; Roenker, Daniel L.; & Carroll, Jeri A. Relationships of the cognitive tempos of elementary school children and responses on the cloze informal reading inventory. *Florida Reading Quarterly,* March 1985, *21*(3), 31-33.

Investigates the relation between pupils' performance on a cloze informal reading inventory and scores on the *Matching Familiar Figures Test* (MFF), a measure of cognitive tempo. A sample of 125 southcentral Kentucky second through sixth graders were administered both the MFF and a fifth-word deletion cloze test based on basal reading material. The MFF scores were derived from response latency and errors, while the cloze test was scored using Bormuth's (1965) categories of possible responses types, such as the syntactic and semantic acceptability of the responses. Results suggested that types of responses made on the cloze informal reading inventory were not affected to a significant degree by cognitive tempo, as determined by the MFF.

HALPERN, HONEY G. An investigation of reading and conceptual tempo measures. *Reading World*, October 1984, *24*(1), 90-96.

Compares the task requirements for measures of reading with the task requirements for measuring conceptual tempo. New Westminster, British Columbia, second grade pupils (n=168) were administered the Matching Familiar Figures Test (MFFT) and eight reading tasks. For the MFFT, each subject was shown a line drawing and asked to choose an identical one from similar drawings. Measures of response latency to the subjects' first choice and the number of responses necessary for a correct match were recorded. Ninety-seven children were categorized as either a reflective or an impulsive conceptual tempo. Reading tasks included four word recognition tasks taken from the grade two and grade four words of *A Canadian Word List*, and four comprehension tasks, modeled after a maze technique applied to grade two and four Canadian basals. Subjects were asked to select the correct word for systematically occurring blanks in the text when offered three choices (syntactically acceptable only, syntactically and semantically unacceptable, and the correct choice). Data were analyzed through a one way MANOVA, with conceptual tempo as the independent variable. Findings showed that there is no significant difference between impulsives and reflectives on tasks of dissimilar distractors. These results were consistent for both easy and hard reading levels. Even when the vocabulary was above the grade level of the pupils, there was no significant difference in conceptual tempo. On comprehension tasks, impulsives differed from reflectives in response to both similar and dissimilar distractors; however, error score analysis indicated greater differences between impulsives and reflectives when the distractors were similar than when they were dissimilar. The researchers concluded that the reflection-impulsivity dimension is related to some reading tasks but not others.

HIEBERT, ELFRIEDA H.; WINOGRAD, PETER N.; & DANNER, FRED W. Children's attributions for failure and success in different aspects of reading. *Journal of Educational Psychology*, December 1984, *76*, 1139-1148.

Describes children's attributions for success and failure in different reading situations and for different age and achievement levels. Subjects were 82 third graders and 82 sixth graders, divided into good and poor readers on the basis of a median split on the Reading Comprehension subtest of the *California Test of Basic Skills*. An attribution measure was developed consisting of 12 items devoted to evaluation of reading and 12 to comprehension of reading. Half of the evaluation and half of the comprehension items related to a successful outcome and half to a failing outcome. Test items were read to children who selected one of five responses for each item. A locus of control score was then obtained for each situation and each outcome. Sixth graders' locus of control scores varied across situations, but third graders' scores did not. Age and achievement interacted, with low-achieving third-grade children giving higher ratings to causes beyond their control than high-achieving third graders, while low- and high-achieving sixth graders did not differ.

SWANSON, BEVERLY B. The relationship of first graders' self report and direct observational attitude scores to reading achievement. *Reading Improvement*, Fall 1984, *21*, 170.

Correlates scores from self-report and teacher observational attitude inventories with reading composite scores on the *Metropolitan Achievement Test* (MAT). A total of 96 grade one pupils were involved. The correlation coefficient between the MAT and self-report inventory was -.2; between the observation inventory and MAT, the coefficient was .68.

Chapman, James W.; Silva, Phil A.; & Williams, Sheila M. Academic self-concept: Some developmental and emotional correlates in nine-year-old children. *British Journal of Educational Psychology,* November 1984, *54,* 284-292.

Assesses 800 nine-year-olds in New Zealand for academic self-concept, intelligence, and school performance. A shortened version of the *Student's Perception of Ability Scale* (SPAS) as used to obtain academic self-concept; IQ was based on WISC-R scores; reading level was established by the *Burt Reading Test;* spelling ability was assessed by a short form of the *Dunedin Reading Test;* emotional status was determined by the *Child Affective State Questionnaire* and depression with the *KIDDIE-SADS-E* scale; verbal comprehension and expression were obtained from subtests of the *Illinois Test of Psycholinguistic Abilities* (ITPA). Girls obtained slightly higher SPAS scores than did boys, and also were statistically higher in scores on School Satisfaction, Reading/Spelling, and Penmanship/Neatness. Full Scale SPAS correlation coefficients with WISC-R scores ranged from .12 to .27. The coefficient obtained between SPAS Full Scale scores and Burt Reading was .36. For depressed. children, depression was associated with relatively negative self-concepts. Children identified as reading retarded had lower SPAS scores than did normal readers.

Peterson, Peggy. Success: A model for the planning and evaluation of college learning. In Delryn R. Fleming (Ed.) *Proceedings of the Sixteenth Annual Conference of the Western College Reading and Learning Association,* Vol. 16. Whittier, CA: Western College Reading and Learning Association, 1983, 39-54.

Examines a wide range of characteristics of undergraduates on academic probation. These characteristics were considered in relation to the student's decision to participate or not in certain special programs provided and, if the student did participate, the nature of the program chosen. Subjects were 350 undergraduates who participated in a probation oriented program. Of these 350, 271 participated in one of five programs: group instruction in study skills, individual instruction in study skills, a personal development seminar, an individualized learning lab, and simple academic monitoring. The 79 students who signed up for no programs were designated as a comparison group. Affective entry characteristics assessed were study habits and attitude, assessed by the *Brown-Holtzman Survey of Study Habits and Attitudes;* self-concept assessed by the McHolland and the *Self-Evaluation Inventory;* achievement motivation on the *Questionnaire on Study Habits;* and success expectancy as indicated by the *Canfield-Lafferty Learning Styles Inventory.* Selected findings include: students participating in a program had higher self-concepts than students not participating; deciding to participate in one of the programs was not related to remaining in school, but students completing a program had higher retention rates and GPAs than students not enrolling; and students completing the programs made gains on the posttests in study habits, study attitudes, general self-concept, and achievement motivation.

Estes, Thomas H. The skills of studying. In Jerome A. Niles & Larry A. Harris (Eds.) *New Inquiries in Reading Research and Instruction.* Thirty-first Yearbook of The National Reading Conference. Rochester: The National Reading Conference, 1982, 48-53.

Reports the results of a factor analysis of a study habit questionnaire administered to college students (n=418), 10th graders (n=48), and 7th graders (n=76). The questionnaire required subjects to respond "rarely or never," "sometimes," or "often or always" to a series of 26 statements concerning study habits, first with reference to reading a homework assignment and second with reference to studying for a test. A factor analysis was conducted, repeating the procedure for odd and even numbered subjects to assess factor replicability. For the homework condition three factors were identified. The first, distractability, related to daydreaming/wasting time (replication at .97 level). The second, industry/compulsivity, related to rereading and self-testing (replication at .97 level). The third, initiative, related to reformulating information in some way (replication at .80 level). For the studying for a test condition two factors emerged. Distractability was one (replication at .97 level) and the second was termed assimilation. This related to absorbing the information for a specific goal (replication at .95 level). College students and 10th graders differed from 7th graders on the assimilation factor. On the industry/compulsivity factor 7th graders scored higher (reported using the strategies more frequently) than 10th graders, who scored higher than college students. It was consistently reported that students developed study habits on their own without help from teachers.

RASINSKI, TIMOTHY V. Field dependent/independent cognitive style research revisited: Do field dependent readers read differently than field independent readers? *Reading Psychology,* 1984, *5*(3-4), 303-322.

Surveys the research literature on field dependence/independence as it relates to reading and reading instruction. Specific topics addressed include the relation of field dependence/independence to overall reading performance, vocabulary, and comprehension. Implications for instruction are developed.

GOLDSCHMID, MARCEL L.; MOESSINGER, PIERRE; FERBER-STERN, TAMAR; KOERFFY, ANDRE: & ROZMUSKI, JAN. Text processing: A comparison of reading and listening. In August Flammer & Walter Kintsch (Eds.) *Discourse Processing.* Amsterdam & New York: North-Holland Publishing Company, 1982, 521-526.

Compares the reading and listening comprehension of 90 first year Swiss university students. The text was a collection of ideas written for the study on the subject of obedience and conformism. There were four conditions: listening/expressive speaker, listening/non-expressive speaker, reading/structure and reading/non-structured. Expressivity was defined as variation in intonation, the presence of gestures and the attempt to establish rapport with the listeners. Structure was defined as the presence of a small introduction, underlining of important sentences, presentation of objectives before reading, titles, sub-titles and a summary. Both immediate and delayed recall were measured. Personality was measured with the *California Psychological Inventory* and the *Adjective-Check-List.* There were no significant differences in learning between any of the conditions. There were some interactions between method of presentation and personality.

IV-19 Readability and legibility

HILL, WALTER R., & ERWIN, ROBIN W. The readability of content textbooks used in middle and junior high schools. *Reading Psychology,* 1984, *5*(1-2), 105-117.

Obtains multi-formula readability estimates on 111 content textbooks (English, Science, Social Studies) used in grades six through nine. Additionally, data were analyzed for central tendency, between-and-within text variability, and comparisons made with intended school grade. Five readability formulas were used on all texts, and a sixth formula on some of the books. While median readability for all texts fell within one-half grade level of school placement, the range within each grade level and within the three subject areas varied considerably. Results of at least two formulas placed 49% of texts one or more levels above the grade at which they were being used. Significant within-texts and between-texts readability placements were found for each content area and grade level. Formulas differing in comprehension criteria and in word count procedures gave significantly different mean differences in grade placement.

Barrow, Lloyd H. Computer readability variations in elementary science textbooks. *New England Reading Association Journal*, Spring/Summer 1984, *19*(2), 12-26, 40.

Compares readability formula variations on elementary science passages from three textbook series for grades 1-6. Five randomly selected passages were used from each text. The MNIRAP Program, a computer based program, was utilized in obtaining readability levels based on the Fry, Dale-Chall, SMOG, Spache, Flesch, and Fog. The Fry tended to give ratings significantly below grade level, and the SMOG was above grade level. The Fry could not be used for over 20% of the samples because they fell beyond the grade level lines. Passage samples readability tended to vary considerably. However, overall, a high level for one formula was also found for others. Because of the ease of determining readability using computer programs, it was suggested that longer, more involved formulas could be used in determining readability of content texts.

Duffelmeyer, Frederick A. Estimating readability with a computer: Beware the aura of precision. *The Reading Teacher*, January 1985, *38*, 392-394.

Reports results of the RIXRATE readability program applied to an informal reading inventory developed to correspond with the *Rauding Scale of Prose Difficulty.* Using the Rauding Scale, passage difficulty for the informal inventory ranged from grade one to grade eight. RIXRATE is a computerized version of the Rix index which operates by merely entering text to be rated into the computer. RIXRATE results coincided with the Rauding scale in terms of passage rankings. However, for lowest level passages, there was considerable dissimilarity in assigned level of difficulty, with RIXRATE rating these passages much higher than the Rauding Scale. The investigator concludes the the Rix program places undue weight on "long" words at the low end of the readability scale, thereby inflating the ratings.

Nicoll, Angus, & Harrison, Colin. The readability of health-care literature. *Developmental Medicine & Child Neurology*, October 1984, *26*,596-600.

Computes Flesch reading-ease scores (FS) on 109 pamphlets dealing with health issues and for passages in English national daily newspapers. On the Flesch, a high score (over 69) indicates easy reading. Mean FS for the nine newspapers was 68; mean pamphlet FS was 55.

Lindsey, Jimmy D.; Schucha, Elaine A.; & Sterling, Tatina D. A comparison of the readability and reader education levels of five types of commercial periodicals. *Community/Junior College Quarterly*, 1984, *8*,(1-4), 285-292.

Obtains readability and reader education levels on five types of periodicals useful for postsecondary reading programs: newspaper format, minority magazine, neutral magazine, male magazine, and female magazine. The Fry Readability Graph and the Gunning's Fog Index were used to determine reading level and educational level. Five periodicals of each type were sampled, with two issues of each used. The neutral category ranked lowest in readability with *National Geographic* having the lowest readability level (7.0) and *Time* the highest (11.5). The minority magazines had the highest mean readability score (10.6) of the five types of periodicals. Neutral magazines required the lowest reader education level ($\bar{x}$ = 15.82) and minority magazines the most difficult ($\bar{x}$ = 20.29).

Smith, Ron F. How consistently do readability tests measure the difficulty of newswriting? *Newspaper Research Journal*, Summer 1984, *5*(4), 1-8.

Compares the results of application of three readability formulas to 135 newspaper stories taken from the Washington *Post*, the St. Petersburg *Times*, and the Orlando *Sentinel.* The three readability tests were the Flesch Readability Formula, the Gunning Fog Index, and the Dale-Chall. The most prominent national/international stories on the front pages, the most prominent stories from the newspaper section designated as state/local news, and features/entertainment were selected for readability measurement. The F-ratios for the reading-grade level means for each category of stories indicated statistically significant differences. The Dale-Chall differed significantly with the Flesh formula's estimates in almost every category, with the Dale-Chall indicating a lower reading-grade level in each case. Overall, the Flesch test found the *Sentinel* to be on a 13.5 grade level as opposed to 10.4 by Dale-Chall, and the *Post* to be on a 14.6 grade level as opposed to 11.9 by Dale-Chall. The tests varied by roughly four grade levels in the state-local category and three grade levels in the national-international and feature-entertainment categories. Correlation coefficients among the three formulas for each of the three story categories ranged from .30 to .88, with only 7 of 27 pairings failing to reach significance at the .05 level, indicating agreement on the ranking of story difficulty.

Easterby, R.S., & Hakiel, S.R. Field testing of consumer safety signs: The comprehension of pictorially presented messages. *Applied Ergonomics*, September 1981, *12*, 143-152.

Investigates the desirable characteristics of a labeling system for use on potentially hazardous household products. The hazards studied were fire, poison, caustics, electrical, and general. Each hazard was depicted by eight symbols varying in sign image, colors of the image and its background, and shape and color of the enclosure containing the background and image. Comprehension of the sign variants was field tested with a national random sample of 4,000 subjects. The signs were presented to subjects in booklets of 17 signs: one of each of the five types of hazard signs and 12 nonhazard signs. Subjects were asked what they thought the sign meant and verbatim responses were recorded. Data were analyzed using several criteria for comprehension. Depending upon the selected criteria, comprehension ranged from less than 5% to 50%. Effects of previous experience with the sign, age, sex, and household composition were also examined. Specific recommendations for signifying each of the five hazards are given.

Tauber, Marianne, & Stoll, François. The influence of within- and between-sentence variables on the comprehension of newspaper articles by two reader groups. In August Flammer & Walter Kintsch (Eds.) *Discourse Processing*. Amsterdam & New York: North-Holland Publishing Company, 1982, 527-535.

Explores the relative contribution of readability (within-sentence variables) and text organization (between-sentence variables) on the comprehension of newspaper articles. Subjects were 76 job trainees and 28 Mittelschule students, all Swiss, male, and between the ages of 17 and 18. Materials were three newspaper articles. Readability was varied by altering the number of short words, the number of foreign terms, sentence length, and sentence construction. Text organization was defined on the basis of a text grammar specifically designed for newspaper texts. Dependent variables were reading time and recall. Trainees' recall was affected by readability but not by text organization. While students' recall performance was not affected by text version, their reading speed was faster when the texts showed high readability as well as optimal organization. Concludes that the within- and between-sentence dimension influenced text processing in an interactive way.

Levy, Stanley A., & Dixon, Melinda E. Student reading ability vs. textbook readability at a community college. *Educational Research Quarterly*, 1984, *9*(1), 43-47.

Assesses the readability level of 110 textbooks used at a community college and compares those levels with students' reading abilities as determined by the *Nelson-Denny Reading Test*. Textbooks in the Humanities, Sciences, and Vocational Education were evaluated using the *Fry Readability Formula*. Mean readability level in the Humanities was 15.5; in the Sciences, 14.8; and in Vocational Education, 13.9. Of the 1.027 freshmen and sophomores, 24.2% scored at the 7-10th grade level, 25.1% at 11-12th grade, and 50.7% at 13-14th grade level. Highest reading levels were found in students from Letters, Engineering, and Psychology; lowest reading levels were in Vocational Education.

Beck, Isabel L.; McKeown, Margaret G.; Omanson, Richard C.; & Pople, Martha T. Improving the comprehensibility of stories: The effects of revisions that improve coherence. *Reading Research Quarterly*, Spring 1984, *19*, 263-277.

Assesses the effect of revising text to improve coherence on reading comprehension. Two stories, one from a second-grade and one from a third-grade basal reader, were rewritten and presented to 48 third grade children. Children were designated as skilled and less skilled readers based on scores on the reading subtest of the *Wide Range Achievement Test*. Revised stories were given to half the group; original versions to the other half. Story recalls were collected, and 35 multiple-choice questions were given. Children using the revised versions recalled more of the story and correctly answered more questions than did children receiving the commercial versions. Performance of both skilled and less skilled readers was improved by the story revisions. The authors note that the results were obtained even though revisions raised the readability levels of the stories a full year and suggest that traditional readability formulas do not describe what makes a text more or less comprehensible.

Siedow, Mary Dunn, & Hasselbring, Ted S. Adaptability of text readability to increase comprehension of reading disability students. *Reading Improvement*, Winter 1984, *21*, 276-279.

Explores the use of rewritten social studies text with eighth graders who were identified as having reading problems. Subjects were 24 grade eight students who scored below the 40th percentile on the reading subtest of the *California Achievement Test* and identified by their teachers as having difficulty in reading the American history text. Subjects were divided into two groups who read an altered or original version of two passages. Rewritten versions had a fifth-grade readability level using the Flesch formula. A 10-item quiz followed the reading of each text. The use of altered text resulted in a higher quiz test score.

Granaas, Michael M.; McKay, Timothy D.; Laham, R. Darrell; Hurt, Lance D.; & Juola, James F. Reading moving text on a CRT screen. *Human Factors*, February 1984, *26*, 97-104.

Examines, in three experiments, several different versions of the leading format on a cathode-ray tube (CRT). In the leading format text is moved from right to left in discrete jumps of one or more characters at a time. Subjects for all experiments were undergraduate students and numbered 16, 20, and 20. In Experiments 1 and 2, reading comprehension scores were obtained for texts presented via jumps of from 1 to 10 spaces between successive displays. It was found that jumps of from 4 to 10 characters at a time resulted in no significant comprehension differences, but comprehension was poorer for jumps of 1 or 2 characters. In the third experiment, an optimal leading condition of a 7-character jump length was compared with the normal page format on the CRT comprehension of short paragraphs. Comprehension in the leading format was significantly poorer than that in a standard page format on the CRT.

Gould, John D., & Grischkowsky, Nancy. Doing the same work with hard copy and with cathode-ray tube (CRT) computer terminals. *Human Factors*, June 1984, 26, 323-337.

Compares the effect of doing work with hard copy versus the cathode-ray tube (CRT) on readers' proofreading performance, feelings, and vision. Subjects were 24 clerk-typists, 12 from each of two age groups. The younger group had a mean age of 23 years; the older, a mean age of 48. Half the participants proofread hard copy on the first day and half proofread on a CRT; groups were reversed the next day. Each subject proofread one of 12 sets of materials, each containing one misspelling about every 150 words. Misspellings occurred in four different ways, each used with equal frequency: letter omissions, letter substitutions, letter transpositions, and letter additions. Performance was measured in terms of speed and errors in proofing; feelings were assessed by a 16-item questionnaire which was completed at the beginning of the day, after each work period, and after lunch. Various visual tests were administered at the beginning of the day and following each work period. No change in proofreading performance, feelings, and vision were attributable to using CRT terminals. However, subjects proofread from hard copy about 20 to 30% faster than from a CRT.

Dunn, Rita; Krimsky, Jeffrey S.; Murray, John B.; & Quinn, Peter J. Light up their lives: A review of research on the effects of lighting on children's achievement and behavior. *The Reading Teacher*, May 1985, *38*, 863-869.

Reviews the literature on children's preferences for either bright or dim lighting and the resultant effects on achievemewnt. Data reported indicated that poor achievers and right-preferenced students prefer low light. The reviewers note that much of the research is observational or correlational in nature and that only limited lighting research has been conducted in educational settings. Experimental studies of the effects of lighting typically focus on group rather than individual scores. Cited is a study in which pupils' reading speed and accuracy were positively affected when the illuminated instructional environment matched the student's individual preferences for lighting.

Lloyd, Robert, & Steinke, Theodore. Recognition of disoriented maps: The cognitive process. *Cartographic Journal*, June 1984, *21*, 55-59.

Focuses on the cognitive processes used by readers to recognize disoriented maps. Materials consisted of two sets of 16 maps of the lower peninsula of Michigan. One set had the same set of graduated circles on each map while the other set had the same distribution of dots on each map. For each set, eight maps were correct representations of the state but were rotated from north-at-the-top by increments of 45 degrees; the other set presented mirror representations. Subjects were 60 paid undergraduate volunteers. Subjects were told that they would be presented with maps, one at a time, that were rotated from north-at-the-top and were to identify whether the map was a correct or a mirror version. Means for the two groups of students (one for each set) were essentially identical; no significant differences were found between sexes; reaction times for correct and mirror image identification showed no significant differences between the two. The degree of rotation of a map influenced the time it took to recognize whether the map was a correct or a mirror image. The graduated circle maps took significantly longer to recognize than did the dot maps, suggesting that maps with more information on them take longer to process.

Smith, Raoul N., & Frawley, William J. Conjunctive cohesion in four English genres. *Text*, 1983, *3*(4), 347-374.

Studies the amount and type of conjunctive cohesion found in four genres: fiction, journalism, religion, and science. Samples of 16,000 words were taken from each genre and analyzed for the distribution of conjunctions in general, for coordinating and subordinating conjunctions, and for cohesive conjunctions. Coordinating conjunctions constituted 66.4% of the conjunctions in fiction, 54.7% in journalism, 55.4% in religion, and 59.4% in science. Three coordinating conjunctions (and, but, or) occurred frequently in all four genres. The variety of subordinating conjunction types was greater than the coordinating conjunction types. Two (that, as) were most frequent in all four genres. The percentage of conjunctions used cohesively was 10.4% for fiction, 5.9% for journalism, 7.8% for religion, and 3.2%

for science. Science showed no use of cohesive coordinating conjunctions, while in fiction there was an 11% use of coordinating conjunctions. Percentages of subordinating conjunctions used in a cohesive manner were fiction–9.1%, journalism–4.3%, religion–9.2%, science–8%. Other differences in the amount and type of conjunctive cohesion used by the four genres were found. Fiction and religion were found more similar to each other in the amount and kinds of cohesion conjunction used than they are to journalism and science.

HILTUNEN, RISTO. The type and structure of clausal embedding in legal English. *Text*, 1984, *4*(1-3), 107-121.

Examines the use of embedding (subordinate clauses within one sentence) in a corpus of 373 sentences from the British Road Traffic Act of 1972. The total number of words in the passage was 27,324 with a mean sentence length of 79.25 words. A total of 1,481 finite clauses were found, 564 principal clauses and 917 subordinate clauses. The former were more frequently either relative or adverbial; the latter, participial. There was a preponderance of right-branching clauses as opposed to left-branching or nested clauses. When levels of embedding were studied, it was noted that while right-branching may extend deepest, left-branching showed the highest average maximum depth, nested clauses being closest to the principal clause. It was concluded that, when compared with findings from other research, legal English may be considered a sublanguage of its own in this respect.

GUSTAFSSON, MARITA. The syntactic features of binomial expressions in legal English. *Text*, 1984, *4*(1-3), 123-141.

Studies the use of binomials in legal texts, novels, newspapers and journals, and popular scientific writings. Binomials are sequences of two words which belong to the same form class and are semantically related and syntactically coordinated (by and with, to have and to hold, rules and regulations, research or development). Usage was studied in terms of four syntactic parameters: thematic structure, clausal structure, sentence elements, and parts of speech. While binomials did not differ significantly in the four kinds of text in terms of syntactic behavior, they were four to five times more common in legal English than in other prose. Typically the binomial is a pair of nouns which function as an adverbial in the rhematic part of the sentence.

KURZON, DENNIS. Themes, hyperthemes and the discourse structure of British legal texts. *Text*, 1984, *4*(1-3), 31-55.

Examines five genres of British legal texts in terms of the thematic structure of each text. Documents examined included a deed, a will, a house-purchase agreement, a court order, and a statute. The predominant type of thematic progression involves the hypertheme of the particular text, which is derived from two sources: the set of expectations produced by the specific genre of text and the title of the text, if one is there. The texts were found to have a cohesive structure. Difficulties in reading such texts are conjectured as due to specialized words, sentence length, and a high proportion of postmodifiers in noun phrases.

WESTMAN, MARGARETA. On strategy in Swedish legal texts. *Text*, 1984, *4*(1-3), 57-70.

Analyzes two types of legal texts, statute law and an administrative message to citizens. Five situational constraints are examined: social value, purpose of the text, the person deciding the semantic content, the relation between the sender and the recipient, and who the normal recipients of the text are. The author concluded that language planning in the field of legal language must not only take heed of the text surface but also of the underlying communicative conditions and complex functions of legal texts.

GUNNARSSON, BRITT-LOUISE. Functional comprehensibility of legislative texts: Experiments with a Swedish act of parliament. *Text,* 1984, *4*(1-3), 71-105.

Tests the comprehensibility of an altered version of Swedish legal text which was systematically changed from a court perspective to a citizen perspective. A 60-minute test was used to assess the effect of the change in perspective. The test was administered to 264 Swedish adults representing ordinary employees, trade union officials, and lawyers. For all three test groups, those given the alternative text showed higher correct scores than those who read the original text. The law group had the highest percentage correct on both versions.

IV-20 Studies on the reading process

AFFLERBACH, PETER, & JOHNSTON, PETER. Research methodology on the use of verbal reports in reading research. *Journal of Reading Behavior,* 1984, *16*(4), 307-322.

Discusses critically issues involved in research which has utilized introspective/retrospective techniques in collecting data. Methodological variations in previous studies using verbal reporting procedures are addressed in terms of tasks and procedures, subjects, analysis of protocols, and research designs. It is concluded that, when used appropriately, verbal reports afford a unique means for viewing cognitive processes.

HICKMAN, JANET. Research currents: Researching children's response to literature. *Language Arts,* March 1984, *61*, 278-284.

Argues for studying children's response to literature in a natural classroom setting. An example of the writing of one seven-year-old girl is discussed in terms of the total setting in which it occurred. The role of the teacher in the development of children's response is also emphasized. Implications for teachers are presented.

WAERN, YVONNE. How do you fill in this xxx? On some interpretation processes. In August Flammer & Walter Kintsch (Eds.) *Discourse Processing.* Amsterdam & New York: North-Holland Publishing Company, 1982, 152-165.

Examines the strategies and processes people use when they encounter an incompleteness in text. First describes a task analysis of these processes and possible variations. The author postulates four cases or schemas incorporated in this task analysis: word, text, clause and analogy. Thirty-seven Swedish undergraduate psychology students were asked to think aloud as they processed written Swedish clauses in which a word was missing or was unfamiliar. There were five unfamiliar words, each used in five different contexts. Protocols were analyzed in terms of the four schemas. It was found that the schemas accounted for 75% of the collected protocols. The most common thought operations consisted of: locating schemata from prior knowledge, suggesting an interpretation within the restrictions of the schemata, and checking. Also finds that different strategies were used to decide which operation to employ. The characteristics of the remaining protocols were: difficulty in finding an adequate word suggestion, failure of preliminary encodings, and distortions of interpretations.

MATEJA, JOHN A. A qualitative analysis of middle school students' awareness and processing of textbook metastructure. In George McNinch (Ed.) *Reading Research to Reading Practice.* Third Yearbook of The American Reading Forum. Athens, GA: The American Reading Forum, 1983, 73-76.

Investigates the kinds of knowledge which students utilize when engaging the structure of reading materials. Subjects were sixth-grade pupils of above average (n=6), average (n=4), and below average (n=2) reading ability. Three instruments were employed in the study. The first was a two-page excerpt from a middle school textbook in which letters and numbers were replaced by Xs of equal point and weight, and graphics maintained their spatial configurations and locations but conveyed no content. The second instrument was a test of textbook metastructure. The third was a structured interview form designed to elicit information concerning the subject's thinking during the administration of the second instrument. Three types of strategy were identified from the interviews. A reader-based strategy 1) used a lot of information, 2) utilized an abstract or context-free system for answering the questions, and 3) exhibited knowledge of the layouts of printed materials. A text based strategy 1) relied almost exclusively on information from the reading materials, 2) reasoned on an item-by-item basis, and 3) showed poor understanding of the layouts of printed materials. A combination of these two strategies involved 1) using considerable information from the materials to activate reader knowledge, 2) engaged in concrete and abstract reasoning, and 3) indicated nonspecific knowledge of layout features. Only above average readers indicated awareness of textbook metastructure. A theoretical explanation of the results is offered.

GRANT, AUDREY N. Reading styles, reading uses and teaching responses. In Jonathan Anderson & Kate Lovett (Eds.) *Teaching Reading and Writing to Every Child.* Adelaide, South Australia: Australian Reading Association, 1983, 95-105.

Describes the reading profile and personal responses of five adolescents, ages 15 to 18, to the reading of fiction, drawing upon interviews and written responses over a three-year period. The reading profiles were based on the modes of response, recurrent reading themes, purposes and experiences which characterize a unique reading style, while the personal profile considered the way the individual makes sense of his own experiences, expresses his personal theme, preoccupations, aspirations, and interests in areas which have no obvious relation to reading. Examples are provided of four readers' written responses to the same text. The researcher describes four different ways that the case study individuals used reading: 1) reading for power; 2) reading for support; 3) reading for singularity, specialness; and 4) reading for restraint, control.

ALVERMANN, DONNA E. Second graders' strategic preferences while reading basal stories. *Journal of Educational Research*, January-February 1984, *77*, 184-89.

Analyzes the think-alouds of 30 second graders to investigate the use of different reading strategies to comprehend 12 targeted statements in two basal reader narratives. Statements were targeted to setting, initiating event, internal response, attempt, consequence, and reaction. At intervals, subjects were stopped and asked to tell what they were thinking or doing as they read a specific sentence. Each child was then asked to tell a friend who was not involved in the study what was remembered about the story. All retellings were scored for the total number of target statements recalled, as well as for category. Recall proportions were: settings (.68), initiating events (.70), consequences (.75), attempts (.32), internal responses (.28), and reactions (.08). Strategy types of think-alouds (elaborative: inference, personal identification, and image; non-elaborative: literal/paraphrase, self-interrogation, and no response) varied with the category of targeted statement. Elaborative strategies were used significantly more often for initiating event or setting, and non-elaborative for attempt, internal response, and reaction.

CULLINAN, BERNICE E.; HARWOOD, KATHY T.; & GALDA, LEE. The reader and the story: comprehension and response. *Journal of Research and Development in Education*, Spring 1983, *16*(3), 29-38.

Conducts a study of developmental factors in children's response to realistic and fantasy novels in a naturalistic mode. Subjects were 18 children in grades 4, 6, and 8, nine of each sex. Children were interviewed individually concerning their concept of a story. They were then asked to read one or two novels and both individually and in same-sex groups of three asked to discuss the book. Analysis of protocols revealed developmental levels in comprehension. Story recall progressed from retelling and synopsis to summary and analysis. In recalling, fourth graders remained at the literal level, sixth graders made inferences, and eighth graders could make evaluative judgments. Fourth grade pupils understood little of the symbolic and metaphoric elements of the text; eighth graders saw multiple meanings in the symbolic and metaphoric features of the stories. Relative to thematic comprehension, younger subjects found only a simple message, sixth graders saw the more subtle messages in the work, and eighth graders saw multiple messages and drew implications for their own lives.

Swanson, Beverly B. Listening to students about reading. *Reading Horizons*, Winter 1985, *25*, 123-128.

Examines the perceptions of reading held by 18 kindergarteners, 21 third graders, and 30 sixth graders. Children were asked questions by preservice teachers designed to elicit responses in four categories: definition of reading, purpose for reading, process of reading, and teacher's instructional intent. The majority of children (62%) perceived reading as a process of sounding out or word calling, with more kindergarteners than older children defining reading as meaning-related. Almost half of the children viewed the purpose for reading as either fun or a method of gaining information. About one-third of the pupils, when asked what they did when they read, responded with the process as an overt action such as sounding out words. Responses by grade level to this question revealed a progression from overt action by younger children to an internalized, covert action by older children. When asked a question about the teacher's instructional intent in asking questions, 52% thought teachers were testing them and 36% viewed questioning as a means to improve reading skills.

Easton, John Q., & Ginsberg, Rick. Student learning processes: How poorly prepared students succeed in college. *Research & Teaching in Developmental Education*, 1985, *1*(1), 12-33.

Conducts interviews with 26 low-aptitude, high-achieving city college students to determine their study habits and techniques. Four major processes were identified as responsible for subjects' academic success: involvement, review/study, selectivity, and planning. Students displayed involvement in their school work both in class and outside of class. They attended class regularly, were highly attentive, took notes, asked questions, and participated in discussions. As a group, these students tended to be strongly goal oriented with long-range goals in mind.

Coley, Joan D. Insights from a sustained silent reading project: What we learned by talking to teenagers. In Linda B. Gambrell (Ed.) *Reading: Process, Instruction and Assessment.* College Park, MD: The State of Maryland International Reading Association, 1984, 8-13.

Interviews 27 junior high school students in each of the four schools as part of a larger investigation into the effects of sustained silent reading (SSR). The project had included nearly 2,000 students. Two of the schools had been assigned as experimental schools to implement a daily 30-minute SSR program, the other two were control schools. Interviewees were three good, average, and poor readers randomly selected from each of grades 7, 8, and 9. Reading ability was determined by the *Gates-MacGinitie Reading Survey Tests*. Informal results on two questions from the interview are presented. In one, subjects were shown 10 books and asked to state which book they would like to read and why. Next they were shown an easy book and asked how they would help someone who is having trouble reading the book. Experimental group subjects were reported as making more than twice as many projective comments about the contents of the books as did controls. Controls emphasize basic word identification strategies in helping others, while experimentals more often suggested a systematic strategy and independent student learning activities.

Kobasigawa, Akira. Children's retrieval skills for school learning. *The Alberta Journal of Educational Research*, December 1983, *29*, 259-271.

Assesses the retrieval strategies that are used by children to conduct research projects in elementary schools. Retrieval strategies were divided into two processes: those used during a search process when subjects determine where information is likely to be located; and those used during an evaluation process when subjects determine the suitability and sufficiency of the gathered information for the task. The 20 fourth-grade and 20 eighth-grade subjects were from a middle class parochial school in Canada. All had done research projects prior to participating in the study and were familiar with card catalogues, tables of content, and indices. In individual interviews, subjects were questioned on their ability to generate research questions, select search areas, and to evaluate information for suitability and accuracy. Differences were found by grade level on generating research questions, on search areas, and on evaluating gathered information, although not all differences within the broad categories were statistically significant. Grade 8 subjects required less probing and directive instruction to answer tasks than did grade 4 subjects. Older children's responses were often more elaborate and integrated. Younger children were less sensitive to the need for up-to-date information than were the older subjects, and were less able to identify irrelevant information.

Carpenter, Patricia A., & Just, Marcel Adam. Cognitive processes in reading: Models based on readers' eye fixations. In Alan M. Lesgold & Charles A. Perfetti (Eds.) *Interactive Processes in Reading*. Hillsdale, NJ: Lawrence Erlbaum Associates, 1981, 177-213.

Develops a process model of reading comprehension, as well as a more general theoretical framework to explain why and how reading changes with the task, the text, and the reader. The model focuses on the processes of word encoding, case role assignment, and text integration and attempts to account for how long readers fixate on various parts of text by analyzing the comprehension demands at the point of fixation. The eye-movements of university students reading 15 scientific texts from *Time* or *Newsweek* were analyzed. Readers did not distribute their gazes uniformly during reading. At the encoding and case assignment stages, clauses with infrequent words took more time to process; at the integration stage, units that were higher in the text grammar received longer gaze durations; details took less time to be integrated; and the end of a sentence could trigger additional processing, including inference making and integration.

McConkie, George W., & Zola, David. Language constraints and the functional stimulus in reading. In Alan M. Lesgold & Charles A. Perfetti (Eds.) *Interactive Processes in Reading*. Hillsdale, NJ: Lawrence Erlbaum Associates, 1981, 155-175.

Discusses and reviews research on the nature of the functional stimulus in reading. The major question of the review is what aspects of the text stimulus are being attended to or used while reading? First addresses studies involving tasks other than skilled, silent reading. Topics covered in this section include perceiving language in noise, perceiving briefly presented words, proofreaders' errors, and oral reading errors. Also discusses three topics related to perception during reading, the text region attended, where the eyes are sent, and the attended aspects of the visual stimulus during reading. The final topic addressed relates to the question of where is contextual facilitation? Although the authors' conclusions are qualified, it is concluded that contextual facilitation is not achieved by reducing the amount of visual information a reader acquires from individual words.

BLANCHARD, HARRY E.; MCCONKIE, GEORGE W.; ZOLA, DAVID; & WOLVERTON, GARY S. Time course of visual information utilization during fixations in reading. *Journal of Experimental Psychology: Human Perception and Performance,* February 1984, *10,* 75-89.

Investigates the time at which visual information is utilized during an eye fixation when reading. Undergraduates (n=16) read short texts from a cathode-ray tube (CRT) in three conditions. In the experimental condition they read pairs of texts which were different in meaning because either the first or last letter of a five-letter word was changed. During each fixation on every line of text, the text was replaced by a mask for 30 ms. The onset of the mask was delayed for either 50, 80, or 120 ms. For each fixation that fell within the region of the critical word, the critical letter was replaced when the text reappeared. At the beginning of each saccade the text reverted to its original form. The no-switch control condition was similar to the experimental condition, except that the text did not change. In the no-mask condition no experimental manipulations occurred. Subjects first read 72 texts in the experimental condition, then 24 texts in the no-switch control condition, and then 16 texts in the no-mask control condition. After each text, four words, two of which were the critical words, were presented one at a time on the CRT, and subjects indicated whether or not they had appeared in the text. In the experimental condition subjects reported only one of the critical words 65% of the time. The longer the first word was present, the less likely the second word was to be reported (p o). There was an interaction between mask-onset time and response, and between response and critical letter position ($p = .03$). The pattern of responses indicated that letters of a word were not scanned from left to right during a fixation.

BADDELEY, ALAN, & LEWIS, VIVIEN. Inner active processes in reading: The inner voice, the inner ear, and the inner eye. In Alan M. Lesgold & Charles A. Perfetti (Eds.), *Interactive Processes in Reading.* Hillsdale, NJ: Lawerence Erlbaum Associates, 1981, 107-129.

Integrates previous research of others, their own previous research and eight experiments reported in this chapter in order to explore the types of memory codes that may be involved in reading. In two experiments, subjects classified or verified anomalous sentences. In two other experiments, subjects responded to anomalous sentence tasks while reciting digits in order to suppress articulation. Finally, three rhyme judgment experiments and one pun experiment were conducted. The authors state that they are not in a position to draw any unequivocal conclusion, but they do designate some interpretations and identify further needed research.

SINGER, MURRAY. Answering questions from text: A process model. In August Flammer & Walter Kintsch (Eds.) *Discourse Processing.* Amsterdam & New York: North-Holland Publishing Company, 1982, 172-183.

Describes the author's model VAIL, "Verifying the Assertions and Implications of Language," and conducts two experiments to evaluate the validity of the predictions of the model. The subjects of Experiment 1 were 53 undergraduates, 31 of whom were also subjects of Experiment 2. In Experiment 1, readers verified sentences that were true or false, and explicit or implicit in relation to antecedent passages. In Experiment 2, readers used the responses YES, NO, or DON'T KNOW to answer questions about brief passages. The dependent variables were time to verify statements or answer the questions and errors. Neither the response latencies nor the error rates were prohibitively inflated, relative to those measured when single sentences were used as the antecedent messages. Concludes the the results of these experiments were generally consistent with the predictions of the model.

French, Patrice. Semantic and syntactic factors in the perception of rapidly presented sentences. *Journal of Psycholinguistic Research*, November 1981, *10*, 581-591.

Conducts a study to examine the nature of the initial hypothesis in sentence processing. The *Rapid Serial Visual Presentation* (RSVP) technique was used to examine this issue. Stimuli were seven-word sentences that were 1) syntactically simple, compound, complex, or scrambled; and 2) semantically well integrated, poorly integrated, or anomalous. The sentences were presented at 14 or 24 words per second. The dependent variable was the number of words the 36 undergraduates subjects reported (wrote) that they actually saw. Significant effects for both syntactic structure and semantic structure were found at the slower speed, but only semantic structure effects were found at the faster speed. Concludes that the initial hypothesis in structuring the input from sentence processing is semantic.

Garnham, Alan. Mental models as representations of text. *Memory & Cognition*, November 1981, *9*, 560-565.

Presents and tests a theory of text representation. The author argues that text is encoded in a mental model that contains representations of only those individuals and events that are relevant to the interpretation of the given text. It is further argued that these models are constructed on-line in response to both the text and knowledge of the real world. To test this proposition, 12 paid adult volunteers listened to 24 sentences. Each sentence was one of four sentences that describe the same situation in the world but differ in propositional phrases contained in the sentence. Though all four sentences differed in propositional phrases, the differences between one pair were minimal and compatible with the real world (confusable) and the differences between the other pair were not as compatible with the real world (nonconfusable). After listening to one of the sentences from each of the 24 sets of sentences, subjects were given two test tasks, a memory recognition task in which they selected from the four sentences of each set the sentence they had seen and a judgment task in which they judged the similarity of the situations presented in pairs of sentences from the 24 sets of sentences. The results were supportive of the author's proposition – subjects made significantly more confusion errors on confusable sentences than on nonconfusable sentences.

Hatta, Takeshi, & Hirose, Takehiko. Reading of Japanese and foreign loan words by Japanese and Australian students. *The Science of Reading*, December 1984, *28*, 121-129.

Checks the reading times of 26 native Japanese university students and 14 Australian students enrolled in a Japanese language course. Both groups read Japanese and foreign loan words written in hiragana and katakana. For Australians, there was no difference in the reading times for the two word types. For Japanese students, reading times for foreign loan words were influenced by their familiarity, but reading times for Japanese words were less influenced by familiarity. Japanese were felt to be employing both visual-orthographic and phonologic strategies, whereas only a phonologic strategy was used by Australians.

Bensoussan, Marsha, & Laufer, Batia. Lexical guessing in context in EFL reading comprehension. *Journal of Research in Reading*, February 1984, *7*, 15-31.

Investigates the use made of context by advanced learners of EFL (English as a foreign language) to identify unknown words in text. Subjects (n=60), who were first-year college students, were given a list of 70 words to translate into their own language. A week later they were given a clean copy of the same word list, together with a 574 word text containing all of the words. A comparison was made of the translations, and a classification of the second translations made in terms of being 1) a known word; 2) a contextually correct guess; 3) an approximate guess; 4) a wrong guess; and 5) no attempt to guess. Wrong guesses were also subclassified in seven categories. Scores on the test with context were higher than scores for the words in isolation. An examination of the text found contextual clues for 41 of the 70 words, but students exploited the available context clues for only 17 words. The nature of wrong guesses was examined, and it was concluded that the commonest strategy was the application of preconceived notions about the meanings of words or phrases.

STANLEY, ROSE MARY. The recognition of macrostructure: A pilot study. *Reading in a Foreign Language*, Spring 1984, *2*, 156-168.

Describes an exploratory study designed to compare native and nonnative speakers of English on how they process text. Nine subjects, all postgraduate engineering students, were used. Four were native English speakers, three spoke English as a second language, and two spoke English as a foreign language. Subjects were asked to read two texts and then four summaries accompanying each text. The four summaries included a model summary which reflected the complete structure of the original texts, and a no-problem, no-solution, and random summary, each of which distorted the original text structure in some way. Subjects were to rank the summaries in order of preference and to give the reasons behind their ranking. The rankings for the two texts were relatively homogeneous between the native and nonnative groups. Native speakers tended to give reasons about readability, style, and information-content for their rankings, whereas nonnatives commented on the structure of the summaries.

SMITH, PHILIP T., & PATTISON, HELEN M. Models for letter cancellation performance and their implications for models of reading. *Quarterly Journal of Experimental Psychology*, February 1982, *34A*, 95-116.

Develops and examines models that might be proposed to account for data derived from experiments in which subjects are asked to cancel target letters while reading prose passages. The models consist of two components: 1) how information is represented by the reader, and 2) how information is scanned to enable the reader to detect particular target letters. Predictions relative to these models are tested on data previously collected from another study. Only the more elaborate models with a complex multi-level representation together with a scanning mechanism sensitive to word and morpheme boundaries could account for letter cancellation data. The model is presumed to be characteristic of normal reading.

LEVY, BETTY ANN. Interactive processes during reading. In Alan M. Lesgold & Charles A. Perfetti (Eds.) *Interactive Processes in Reading*. Hillsdale, NJ: Lawrence Erlbaum Associates, 1981, 1-35.

Summarizes the recent advances in the development of reading theory. The first section outlines the basic assumptions of serial versus interactive models of reading. The second section consists of a review of studies on context effects from the research paradigms of lexical decisions, phoneme monitoring, listening studies and reading prose passages. The concluding section summarizes some of the author's work on vocal suppression and context effects. Concludes that any model of reading must demonstrate reading as a flexible process.

LESGOLD, ALAN M., & PERFETTI, CHARLES A. Interactive processes in reading: Where do we stand? In Alan M. Lesgold & Charles A. Perfetti (Eds.) *Interactive Processes in Reading*. Hillsdale, NJ: Lawrence Erlbaum Associates, 1981, 387-407.

Designates some general issues that seem important for understanding reading and reading skills in terms of interactive processes. Topics discussed include the logogen theory, the limitations on processing capacity, the cascade theory, expert-novice comparisons, certain methodological issues the contributions of speech-understanding research, and the elusiveness of phonological processes.

SINGER, MARTIN H. Competent reading: A laboratory description. In Martin H. Singer (Ed.) *Competent Reader, Disabled Reader: Research and Application*. Hillside, NJ: Lawrence Erlbaum Associates, 1982, 3-31.

Reviews selected research concerning the cues a reader may use when reading, in order to suggest a hierarchical model of successful reading. Sections include discussions on redundancy, orthographic information, other types of visual information, the phonetic perspective, the semantic perspective, automaticity, attention, and context use. It is argued that higher level skills may be ineffective if lower level skills have not been mastered.

STICHT, THOMAS G. Literacy at work. In Barbara A. Hutson (Ed.) *Advances in Reading/Language Research*, Vol. 1. Greenwich, CT: Jai Press Inc., 1982, 219-243.

Reviews research by the author and others concerned with reading in a vocational context. The auding and reading of good and poor readers is examined in relation to a developmental model of literacy.

CARR, THOMAS H. What's in a model: Reading theory and reading instruction. In Martin H. Singer (Ed.) *Competent Reader, Disabled Reader: Research and Application*. Hillsdale, NJ: Lawrence Erlbaum Associates, 1982, 119-140.

Reviews selected research to outline a model of the reading process and a general model of skill acquisition. It is argued that models provide a theoretical framework which is useful in four areas: the diagnosis and remediation of reading difficulties; the evaluation of research in terms of reading-relevant skills and resulting instructional approaches; the evaluation of the goals and techniques of particular curricula; and the choice of appropriate classroom tests for different purposes.

CARR, THOMAS H. Building theories of reading ability: On the relation between individual differences in cognitive skills and reading comprehension. *Cognition*, February 1981, *9*, 73-114.

Summarizes several single-factor theories of reading ability and argues that no single-factor theory is likely to be correct due to the wide range of component skills and abilities shown to correlate with reading success. These skills are discussed. Concludes that more complex, multifactor models of reading ability are required, and describes some recent attempts to collect data relevant to such a model. Three different approaches to identifying factors relevant to reading success are stated: general abilities assessment, learning potential assessment, and component skill analysis. Two methods of conducting component skills analysis are presented and the results of a component skills analysis are used to construct a tentative example of a class of hierarchical models of reading ability.

Brown, Ann L.;Day, Jeanne D.; & Jones, Roberta S. The development of plans for summarizing texts. *Child Development,* August 1983, *54,* 968-979.

Examines the development of summarization skills on material which is well known. Four age/grade levels were involved as subjects: 15 fifth graders, 16 seventh graders, 15 eleventh graders, and 11 college freshmen. Six folk tales were divided into idea units which were then rated for importance. Subjects were given two stories to take home and learn. One week later, written recalls were collected, and subjects were asked to first summarize one of the stories, and then to write another summary of only 40 words and then one of only 20 words. They were then required to divide the idea units of the alternate story into four piles according to importance. Analyses showed development trends in the ability to summarize. The two older groups outperformed younger subjects in their propensity to plan ahead, in their sensitivity to fine gradations of importance in the text, and in the ability to condense more ideas into the same number of words. The small number of younger pupils who planned adequately performed at the level of college students. The best predictor of efficiency was planning.

Brown, Ann L., & Day, Jeanne D. Macrocules for summarizing texts: The development of expertise. *Journal of Verbal Learning and Verbal Behavior,* February 1983, *22,* 1-14.

Cites a series of three experiments examining the ability to use macrorules for paraphrasing expository text. Subjects for Experiment 1 were 18 fifth graders, 16 seventh graders, 13 tenth graders, and 20 undergraduate college students. Two expository texts of about 500 words in length were constructed for use in all three experiments. Texts were so constructed that five of six rules of summarization could be used at least three but no more than five times. The five rules were: 1) deletion of unimportant information, 2) deletion of redundant information, 3) superordination (generalization) of lists, 4) selection of a topic sentence, and 5) invention (construction) of a topic sentence when one does not appear. Subjects were asked to read each text, write a summary of it, and then to write a 60-word summary. Younger subjects were able to delete unimportant and redundant information, but older subjects outperformed younger ones in applying the more complex rules. The invention rule was most difficult and fifth- and seventh-grade pupils made little use of it. Even college students used the invention rule only on half the units where it was appropriate. In Experiment 2, two college rhetoric instructors wrote the summaries, but also verbalized their thought processes as they did one. Experiment 3 used 20 freshmen attending a junior college. The college teachers outperformed college students in their ability to combine information across paragraphs and in their propensity to provide a synopsis in their own words. Junior college students performed on the level of seventh graders.

Taylor, Karl K. The different summary skills of inexperienced and professional writers. *Journal of Reading,* May 1984, *27,* 691-699.

Asks 18 subjects to write a summary of an expository article and uses protocol analysis to study their processes. Subjects were nine adults from varying backgrounds, all of whom had done much writing in their respective careers; five high school students who were in the top 10% of their classes; and four below-average students enrolled in remedial English classes at a community college. Students read a 750-word expository article and were asked to write a summary of it. They were requested to talk aloud as they planned and wrote the summary and questions were asked of them. Procedures were videotaped. The college and high school students were similar in the procedures they followed and in their summarizing ability. Differences were seen between the adults and students in reading processes, note taking, abstracting, monitoring, analyzing, and writing processes. Generally, the adults tended to be much more active, careful readers who looked for structure and theme. Students were passive readers who read quickly without much attention to structure.

WILLIAMS, J.D. Covert language behavior during writing. *Research in the Teaching of English*, December 1983, *17*, 301-312.

Investigates differences in covert language activities across reading and writing tasks. Five college freshmen with reading scores between grades 9 and 11 on the *Gates-MacGinitie Reading Test* served as subjects. Subjects read one low level and one high level abstraction passage and then were asked to write on two topics which also varied in level of abstraction. Covert language behavior was measured by three electromyographs and was analyzed to determine physiological changes under both conditions. In the reading condition, both baseline data and data from a five-minute reading were collected for each level of abstraction. For writing, 15 minute samples were collected along with baseline data. There was a significant increase in covert behavior under both reading and writing conditions when the stimulus shifted from concrete to abstract. Under the writing condition, the abstract mode produced a significant increase in covert behavior during pauses in writing also.

ATWELL, MARGARET A. The author as reader: A comparison of proficient and less proficient college writers. In Jerome A. Niles & Larry A. Harris (Eds.) *New Inquiries in Reading Research and Instruction*. Thirty-first Yearbook of The National Reading Conference, 1982, 287-293.

Investigates the effect of being able to see what one is writing on the coherence of essays. Subjects were 20 above and below average undergraduates identified by standardized tests (unspecified) and placement counseling. Each subject wrote a personal essay for 20 minutes. For half the time the students wrote and planned normally, but for the other half they used a pen without ink on paper which left no trace. A visible copy was obtained through the use of carbon paper. After writing, each author read his/her essay and retrospected about the writing and strategies employed. Essays were subjected to a propositional analysis and micro- and macro-structures examined. Proficient writers attained a high degree of local coherence, both when they could read what they were writing (.92) and when they could not (.93). Less able writers produced only moderately coherent text in the visible condition (.67) and lost coherence when they could not read (.31). The frequency of 13 process behaviors is reported for the two groups. When able to read their writing, proficient students did so twice as often as the less proficient. Less able writers consistently exhibited a word-level focus toward text, whereas the better authors evidenced a discourse-level orientation.

SCHMITT, J. PATRICK, & KURDEK, LAWRENCE A. Self-behavior focus of attention as a determinant of children's and adults' attributions to stories with negative outcomes. *Journal of Applied Developmental Psychology*, January-March 1983, *4*, 11-21.

Notes whether children and adults make differential attributions to negative outcome stories which focus either on the self or on the behavior of the protagonist. Participants were 21 fourth graders, 25 sixth graders, 19 eighth graders, and 23 college students. Six stories with negative outcomes were prepared, three focused on the actor's self and three on the actor's behavior. Two response formats were used as follow-ups to reading the stories: open-ended, spontaneous attributions and structured ratings on a five-point scale of the protagonist's self and behavior. Open-ended responses were coded in to one of three categories: self, behavior, and external. Analyses of the open-ended responses indicated that self attributions were more frequently given than either behavior or external attributions to both types of stories. In general children and college subjects did not spontaneously discern differences in focus on self versus behavior. For the structured format, ratings were made on causality, responsibility, blame, and deservingness. Subjects used cause and responsibility interchangeably, but only the older two groups differentiated cause/responsibility from both blame and deservingness.

Alexander, Patricia A.; Hare, Victoria Chou; & Garner, Ruth. The effects of time, access, and question type on response accuracy and frequency of lookbacks in older, proficient readers. *Journal of Reading Behavior,* 1984, *16*(2), 119-130.

Examines the verbal reports and the response accuracy and lookback use of 52 college undergraduates who read a 1300-word expository passage and answered three text-based and one reader-based question on the passage content. Students were randomly assigned to four treatment conditions: timed immediate, untimed immediate, timed delayed, and untimed delayed. Students in the timed conditions were given 10 minutes to read and answer all questions. Others worked at their own pace. Students in the immediate conditions were given questions at the same time passages were distributed. In the delayed conditions, students read the passages before they received the questions. Before and after the reading and question answering, students were asked to write what strategies they would use and did use to successfully complete the task. Students were also queried as to their failure to report and/or employ lookback strategies. Subjects who had questions presented with text looked back more and responded more accurately than did those having separate questions. Lookbacks were for text-based questions only and overall use of lookbacks was low. Timing did not affect use of lookbacks or the accuracy of responses. Verbal reports of strategy behavior were fairly accurate records of actual reading behavior.

Calais, Gerald J. How much weight do children attach to meaning as a defining criterion of reading. In George H. McNinch (Ed.) *Reading Research to Reading Practice.* Third Yearbook of The American Reading Forum. Athens, GA: The American Reading Forum, 1983, 82-85.

Investigates the extent to which elementary school children view certain comprehension and decoding strategies as important to or the same as reading. Subjects (n=90) were randomly selected from the second, fourth, and sixth grades at two elementary schools, without reference to reading ability. Pupils read a sample passage and then five story segments depicting the importance of five variables in reading. The variables related to reading with a purpose, searching for main ideas, sensitivity to textual information, reading as understanding, and reading as decoding. After each passage the subject responded to questions concerning the importance and equivalence of each of these variables to reading by marking a five-point semantic differential scale. After reading all the passages, children ranked each of the variables in order of importance, and then provided his/her definition of reading. No differences were observed between the children's responses to each variable in terms of its importance and equivalence to reading, nor was there any grade effect. Rank orderings of the variables did not differ across grades. Second-graders emphasized decoding more than the other grades in their definitions of reading ($p < .05$). Sixth-graders also emphasized meaning more than fourth graders ($p < .01$), and fourth graders more than second-graders ($p < .01$).

Muth, K. Denise. Solving arithmetic word problems: Role of reading and computational skills. *Journal of Educational Psychology,* April 1984, *76,* 205-210.

Imposes both a computational and a reading demand on problems presented to 200 sixth-grade pupils in an effort to determine how children cope with arithmetic word problems. Tests administered included the reading comprehension and arithmetic computation subtests of the *Comprehensive Test of Basic Skills* (CTBS) and a 15-item arithmetic word-problem test designed for the study. Four versions of the 15-item test were developed by combining two versions of problem information (absence or presence of extraneous information) and two versions of syntactic structure (simple or complex). The four versions were randomly assigned and three measures collected: 1) total correct responses, 2) total correct setups of the problems, and 3) total time. Multiple regression analyses were performed, and results indicated that computational ability and reading ability combined accounted for 54% of the variance in accuracy, with 32% of the variance common to both abilities. Presence of extraneous information reduced accuracy, but complex syntax had no effect on accuracy.

CHASTAIN, GARVIN. Phonological access to the mental lexicon in a target discrimination task. *The Journal of General Psychology,* January 1984, *110,* 53-60.

Cites two experiments attempting to demonstrate a phonological route to the mental lexicon. Subjects were eight and nine college students. In Experiment 1, subjects saw 48 pronounceable quadrigrams which either sounded like an English word or did not and differed only with respect to containing a "P" or an "R" as the first or last letter. Subjects were to judge which target letter was present. In Experiment 2, nonhomophones were produced by changing only the letter next to the one on the opposite end of the string from the target. Extreme letters were the same for both types of quadrigrams. In both experiments, target letters in pseudohomophones were identified significantly more accurately than those in nonhomophones. The results suggest that the mental lexicon can be reached phonologically.

BUCHEL, FREDI P. Metacognitive variables in the learning of written text. In August Flammer & Walter Kintsch (Eds.) *Discourse Processing.* Amsterdam & New York: North-Holland Publishing Company, 1982, 352-359.

Presents a preliminary version of a metacognitive model of self-directed learning. Defines metacognition as control of activity in human information processing. The main components of the model are metaknowledge, program and response generator, and world knowledge. Discusses informally the validation of the model with thinking-aloud data from adult readers. Presents the categories and the rules for the definition of the units of analysis.

FISCHER, PETER M., & MANDL, HEINZ. Metacognition regulation of text processing: Aspects and problems concerning the relation between self-statements and actual performance. In August Flammer & Walter Kintsch (Eds.) *Discourse Processing.* Amsterdam & New York: North-Holland Publishing Company, 1982, 339-351.

Reports two experiments on metacognitive regulation of text processing. The first studied adult learners' knowledge of how to proceed when processing a text and the second studied the differences between good and poor readers' processing of text. In Experiment 1, 12 students were interviewed about one text from their regular study materials. The protocol analysis suggested that mature readers possess concrete knowledge about the processing of written text for the purposes of learning. In Experiment 2, 24 biology students read a 2,600 word child development text followed by a comprehension test and interview; 12 taking the test first and 12 taking the interview first. On the basis of the test, subjects were divided into good and poor readers. Analysis revealed that poorer readers did not engage in less monitoring or evaluation of the their reading, but seemed to do so at inappropriate places in the text.

RINEHART, STEVE D., & PLATT, JENNIFER Metacognitive awareness and monitoring in adult and college readers. *Forum for Reading,* Spring/Summer 1984, *15,* 54-62.

Reviews research in metacognitive awareness and monitoring. Notes that metacognitive development differences exist both among all levels of readers and all age levels of readers. The literature supports the notion that skills in metacognition develop over time and that younger readers may experience difficulty in monitoring comprehension. Older readers exercise more awareness of their own learning processes and greater self-control or monitoring of performance. However, even older readers may have metacognitive deficiencies. Older readers, though, may be the best candidates for strategy training in monitoring behaviors since they are often more aware of and capable of monitoring their mental processes while reading.

Peck, Michaeleen P., & Laughlin, Margaret A. Critical reading, reasoning, and consumer decision making. In George H. McNinch (Ed.) *Reading in the Disciplines.* Second Yearbook of the American Reading Forum. Athens, GA: The American Reading Forum, 1982, 101-105.

Reviews selected research concerning the reading and metacognitive skills needed for educated consumer decision making. A model of consumer decision making is outlined, including the role of reading in gathering information from print.

Kopfstein, Robert W. SQ3R: Reworking an old technique for brain compatibility. In Delryn R. Fleming (Ed.) *Proceedings of the Fifteenth Annual Conference of the Western College Reading Association,* Vol. 15. Whittier, CA: Western College Reading Association, 1982, 14-21.

Compares certain functions of the brain to the processes inherent in study methods, especially SQ3R. States some of the demands of the brain that have been learned in recent research and demonstrates that the SQ3R method, or nearly any other study method, can be adapted to meet these demands.

Groebel, Lillian. Reading: The students' approach as compared to their teachers' recommended method. *English Language Teaching Journal,* April 1981, *35,* 282-287.

Compares adult students in English as a second language classes and their teachers on a questionnaire which required respondents to rank order 15 activities usually involved in the reading of texts. The students were asked to rank the 15 activities in the order in which they usually carried them out. The teachers were asked to rank them in the order they thought students should carry them out. There was 56 students; all were 20 or older, native speakers of Hebrew, studying in the faculties of humanities and social sciences, and enrolled in a 100-hour English reading comprehension course. The teachers were eight of the nine teachers who taught the course. Using the SQ3R technique as a model, the questionnaire list contained seven Survey activities, one Question activity, three Read activities, and four Review activities. Respondents were allowed to omit activities they thought unnecessary. Eighty percent of the students and all the teachers agreed on the first step: read the title. Of the teachers, 63% thought the next step should be to read headings and subheadings, while 57% of the students reported that they would read the entire text. One activity listed on the questionnaire was look up all unknown words. No teacher listed this activity (they all omitted it as an unnecessary activity), but 57% of the students did rank it; in fact, 29% of the students ranked it as the second or third activity.

Ehrlich, Stéphane; Passerault, Jean-Michel; & Personnier, Georges. In August Flammer & Walter Kintsch (Eds.) *Discourse Processing.* Amsterdam & New York: North-Holland Publishing Company, 1982, 53-62.

Investigates the construction of text representation. Hypothesizes that the construction of text representation is made on the basis of concept activation with several hierarchical levels. This process uses text elements that are base concepts (N level) and higher-level concepts reduce some base concepts (N+1). In the first experiment, 300 subjects read or listened to one, two, three or all four paragraphs of a text on sports and then were asked if a given concept was directly or indirectly present in the text or totally absent. In the second experiment, approximately 115 subjects read a six-paragraph text paragraph-by-paragraph. Each of the four versions of the passage varied in the degree to which they substantiated N+1 concept activation. Concludes that while reading or listening, textual information activates both base concepts (N) and superordinate concepts (N+1).

Griffin, T.L.C. Problem solving on maps—the importance of user strategies. *Cartographic Journal*, December 1983, *20*, 101-109.

Analyzes reports from test subjects required to solve a cartographic problem in order to identify the strategies used in the task solution. The 112 subjects were presented with tasks involving a map and cartogram and were asked to write their operations in solving the tasks. Nine procedures were identified as in common use and were related to three subproblems (creation of a reference system, organization of visual search, comparison of display features) they were intended to solve. Subjects were grouped into four major strategy groups characterized primarily by the choice of reference system they used. Some subjects used more than one strategy. The author notes that every subject developed some strategy to solve the problem and that a subject's activity tended to be ordered and regulated rather than haphazard and uncontrolled.

IV-21 Comprehension research

Johnston, Peter. Teaching students to apply strategies that improve reading comprehension. *The Elementary School Journal*, May 1985, *85*, 635-645.

Cites recent research in comprehension instruction and utilizes that information to describe strategies for instruction. It is argued that teachers need to be concerned with improving comprehension ability rather than just comprehension. Teachers need to both model strategies and help children to adopt them. Additionally, there is a need to transfer the control of learning behaviors from teacher to learner through deliberate and repeated exposure. Children need to be helped to understand why they are doing what they are doing and to extend that behavior and/or goal beyond the immediate task. Help in self-evaluation, stress on feedback, and a focus on processes rather than products are other means to aid children in controlling their learning.

Gambrell, Linda B. Induced mental imagery and the text prediction performance of first and third graders. In Jerome A. Niles & Larry A. Harris (Eds.) *New Inquiries in Reading Research and Instruction.* Thirty-first Yearbook of The National Reading Conference. Rochester: The National Reading Conference, 1982, 131-135.

Investigates the effectiveness of induced mental imagery as a strategy for accessing prior knowledge in order to facilitate text relevant predictions. Subjects were first graders (n=29) whose scores on the *Metropolitan Reading Readiness Tests* ranged from 44 to 99, and third graders (n=29) whose scores on the *Cognitive Abilities Test* were between the 15th and 90th percentile, and who were reading at or above the second grade level as determined by teacher evaluation and the *California Achievement Test.* Two versions of a story were prepared, one at the first and one at the third grade readability level, containing the same number of major propositions. The story was divided into five sections based on logical points in the story where predictions about forthcoming events could be made. Subjects were randomly assigned to experimental and control groups at each grade level. The children were interviewed individually, when they silently read the story at the appropriate level. At the end of each section they were asked what they thought would happen next. Subjects in the experimental group were told to make pictures in their heads to help remember what they read, while subjects in the control group were instructed to think about what they read to help them remember. Responses to the prediction questions were scored for reference to facts explicitly stated in the text, and prediction statements. No differences were observed on either measure for the first grade groups. The third grade induced mental imagery group referred to more facts ($p < .005$) and made more predictions ($p < .005$) than the control group.

FITZGERALD, JILL. The relationship between reading ability and expectations for story structures. *Discourse Processes.* January/March 1984, *7*, 21-41.

Investigates the relation between reading achievement and readers' predictive abilities for narrative text structure. Ninety-six fourth graders and 70 sixth graders silently read two stories (or parts of stories) in each of two types of tasks: (1) subjects read incomplete stories and then predicted orally what could or should come next (prediction task); and (2) subjects read stories that had components deleted and orally gave information they thought could fit in the blanks (macrocloze). Students were randomly assigned in Task 1 conditions which were differentiated by how much of the story was read (e.g. Setting only, Setting and Beginning, etc.). Subjects were also randomly assigned to the five conditions in Task 2, in which stories were manipulated so that major components (Setting, Beginning) were systematically deleted. At the end of each task, literal comprehension questions were asked covering the portion of the story that was read. The degree to which readers expected particular story structures was revealed by the extent to which their responses matched the story parts predicted by a story grammar. The major finding was that, on the whole, at each grade level, there was a positive relation between reading achievement and ability to anticipate narrative text structures during reading. The relation was consistent across grades. There was no significant difference between fourth and sixth graders in the extent to which particular story structures were expected.

HARTSON, ELEANORE KIMMEL. The effects of story structure in texts on the reading comprehension of 1st and 2nd grade students. *The California Reader,* March/April 1984, *17*(3), 6-10.

Investigates the effects of the structure of narrative text on the beginning reader's comprehension. Thirty-two first and 32 second grade children were given one of three versions of each of two stories written at their grade placement level. The three versions included: 1) a well-formed story structure; 2) a variant structure in which critical elements were omitted; and 3) a variant structure in which story elements were placed out of sequence. Each subject's ability to retell a familiar folktale was determined prior to the subject's reading and retelling each of the two stories. A measure of reading comprehension, scores on a standardized retelling format, served as the dependent variable. Both first and second graders comprehended the well-formed version of the first story better than the variant versions of that story. For the second story, a folktale, there were no differences in the students' comprehension of original and variant versions. Second graders' reading comprehension was not significantly higher for variant story structures than first graders'. No significant interaction in reading comprehension scores was found between story structure and grade level.

WOOD, MARGO. Linking schema theory and metacognition research to the word identification strategies of beginning readers. *New England Reading Association Journal,* Winter 1985, *20*(1), 18-24, 34.

Reviews the recent literature in schema theory and metacognition with a view toward extracting findings and implications useful for describing beginning readers' development and use of word identification strategies.

Sanacore, Joseph. Metacognition and the improvement of reading: Some important links. *Journal of Reading*, May 1984, *27*, 706-712.

Reviews several studies in the area of metacomprehension and reading. Suggests classroom applications such as teaching students how to generate comprehension questions during reading, monitoring and surviving comprehension blocks, applying study techniques that increase comprehension and retrieval of material, and adhering to an author's text structure.

Bower, Gordon H. Plans and goals in understanding episodes. In August Flammer & Walter Kintsch (Eds.) *Discourse Processing*. Amsterdam & New York: North-Holland Publishing Company, 1982, 2-15.

Studies the judgments of the important elements in narrative episodes of mature readers. Subjects were 60 college students. Materials were two six-episode stories. Each episode consisted of a goal, complication, action, outcome, and four statements that added descriptive, but nonessential, information. Some subjects simply read the stories and then completed delay recall tasks. Other subjects rank-ordered the significance of each statement of an episode, re-read the episodes and then wrote a 15 word summary. A statement's importance correlated with its likelihood of recall and inclusion in the summary. Results of further experiments are presented informally. Subjects were timed as they read four-line episodes in which the goal and action were psychologically near or far from one another according to a specified goal-reduction tree. It was found that readers take longer to comprehend an action when the action is distant from the goal.

Grabe, Mark, & Mann, Steve. A technique for the assessment and training of comprehension monitoring skills. *Journal of Reading Behavior*, 1984, *16*(2), 131-144.

Compares the comprehension monitoring skills of more-skilled and less-skilled upper-elementary readers and college students, and investigates the effect of training on comprehension monitoring ability. Fourth and fifth grade pupils (n=120) from two schools in a small midwestern community and college students (n=27) in an introductory psychology class played reading games in which they tried to determine if prose statements were internally consistent or inconsistent. The elementary students were assigned to either a control condition in which they played only the pre- and posttest versions of the reading games or to a training condition in which they were provided exposure to similar games in an effort to improve their comprehension monitoring skills. Ability group comparisons indicated significant differences in comprehension monitoring skill. Training resulted in a significant increase in monitoring proficiency. However, the training advantage was limited to an improvement in the ability to identify consistent statements.

Tackett, Sue A.; Patberg, Judythe P.; & Dewitz, Peter. The effects of story structure instruction on the recall of poor sixth grade readers. *Reading Psychology*, 1984, *5*(3-4), 193-201.

Investigates the effects of story structure instruction on the recall of 45 sixth-grade students with low socioeconomic background using highly structured narrative materials. Students identified as having a poorly developed story concept received direct instruction in story structure, using 6 two-episode structured stories over a six-day treatment period. Subjects in Control Group 1 read each story but received no story structure instruction; subjects in Control Group 2 received no instruction or exposure to the stories. All subjects were individually posttested through a free recall measure. All of the transcribed protocols were scored, using propositional analysis. A score was assigned both for the number of propositions recalled and for the number of propositions that were located high in the story structure hierarchy. While the groups did not differ significantly in total number of propositions recalled or in number of high propositions recalled, means scores were in the expected directions. In addition, the treatment did have a somewhat stronger effect for students with the lowest concept of story.

HAHN, AMOS L. Assessing and extending comprehension: Monitoring strategies in the classroom. *Reading Horizons*, Summer 1984, *24*, 231-237.

Reports partial results of a study designed to determine whether children monitor their comprehension. A comprehension monitoring questionnaire was administered to 109 sixth graders. The questionnaire consisted of five positive and five negative reading strategies. Pupils rated each statement on a four-point scale based on the frequency with which they used that particular technique for monitoring their own comprehension. Differences between pupils' use of positive and negative strategies were determined. Children who received a mean score below 3.4 were labeled as weak monitors. The researcher reported that many of the children labeled as weak comprehension monitors rated positive strategies as not being very helpful.

JOHNSON, GEORGE S., & BLIESMER, EMERY P. Effects of narrative schema training and practice in generating questions on reading comprehension of seventh grade students. In George H. McNinch (Ed.) *Reading Research to Reading Practice*. Third Yearbook of The American Reading Forum. Athens, GA: The American Reading Forum, 1983, 91-94.

Investigates the effect on reading comprehension of training pupils to generate their own questions while reading and to locate sections of narrative selections which contain main points. Subjects (n=81), who were seventh-grade pupils, were divided into high, middle, and low reading ability groups on the basis of the *Gates-MacGinitie Reading Tests*. Subjects in each group were randomly assigned to one of four treatments. One group was trained in narrative schema and generating their own questions (TSGQ). One group was trained in neither (UIGQ), and the other two groups trained in only one of the techniques (TIGQ and USGQ). The training of the narrative schema groups (TSGQ and TIGQ) consisted of two 40-minute sessions in which subjects were taught the five major areas of narrative schema. Five practice sessions of 40 minutes were conducted in which the pupils read two narrative selections each session, and either generated their own questions (TSGQ and USGQ) or the instructor provided questions (TIGQ and UIGQ). The posttest consisted of two narrative selections with 12 multiple-choice questions per selection. Subjects who had not been trained in narrative schema scored better than those who had ($p=.004$). No overall differences were observed between groups in terms of question generation, but in the schema trained middle achievement level groups the subjects who had learned to generate their own questions scored better than those who had not ($p< .05$). Differences were observed in the expected direction for reading ability levels ($p< .05$).

PAGE, JUDITH L., & STEWART, SHARON R. Story grammar skills in school-age children. *Topics in Language Disorders*. March 1985, *5*(2), 16-30.

Reviews the literature related to story grammar as one valid structure-based model of the processes involved in understanding and recalling stories. The review is organized into a description of story grammars, the role of story grammars, the development of story grammar within children, the assessment of story grammar, and the intervention strategies that aid in the development of story grammar.

Pohl, Rudiger F. Acceptability of story continuations. In August Flammer & Walter Kintsch (Eds.) *Discourse Processing.* Amsterdam & New York: North-Holland Publishing Company, 1982, 124-136.

Uses a story continuation task to test the validity of the generation of expectations component of the Rotor Faden model of the processing of narrative text. Subjects were 48 high school students. They were asked to decide as quickly as possible whether or not the given probe sentence appeared to be an acceptable continuation of a previously read story fragment. Response latencies and correct answers were the dependent variables. There were 32 different texts and 32 different types of probes; the probes varied in strategy, plausibility, function, and nearness/fairness as described by the Rotor Faden model. Interprets the results as indicating that a reader's expectations are an important component of story understanding.

Micko, Hans Christoph. Text divisions and story grammars. In August Flammer & Walter Kintsch (Eds.) *Discourse Processing.* Amsterdam & New York: North-Holland Publishing Company, 1982, 29-41.

Evaluates the predictive validity of six story grammars for the actual divisions of texts by mature readers. Subjects were 40 German university students. Three stories were used, one having 11 propositions, one 19, and one 32. In the experimental condition, subjects were asked to memorize each story. They then recalled each story in the same sequence. In a third step subjects gained experience in text division by partitioning their recall protocols. They also had to find a heading for every super- and subordinate section of their recall protocols. Finally, they were asked to find the most appropriate division of the original stories. Subjects in the control group only divided the original stories. There was marked variability in the divisions of both groups. Some locations in the text were, however, chosen by many or most subjects for marking an intersection, and other intersections were chosen by very few subjects. It was concluded that the divisions represented more or less random similarities of story division, that the representative tree diagrams were artifacts, and that the attempt to identify a few predominant styles of partitioning a story had failed. The predictive value of the story grammars did not differ markedly.

Reutzel, D. Ray. Story mapping: An alternative approach to comprehension. *Reading World,* December 1984, *24*(2), 18-25.

Compares the efficacy of a story map versus discussion of oral/written questions as post-reading treatments following basal reader stories on children's comprehension. Fifth grade pupils (male = 70, female = 66) from two mid- to lower-class elementary schools were divided into three equal blocks of comprehension ability based upon the results of the comprehension subtest of the *Gates-MacGinitie Reading Survey,* Level D, and then randomly assigned from within their blocks to one of two treatment groups or a control group. The two treatments consisted of: 1) a basal reading lesson using a story map to review the passage, and 2) a basal reading lesson using a discussion of oral and written questions to review the passage. Following the reading of the story or treatments, a cloze test drawn from the story was administered to all subjects as a measure of comprehension. Results indicated that both treatment groups increased comprehension compared with the control group. However, no significant difference was found between treatments.

Dintenfass, Nicole. Mode of recall in children's comprehension of social events. In Jonathan Fine & Roy O. Freedle (Eds.) *Developmental Issues in Discourse,* Vol. 10. Advances in Discourse Processes. Norwood, NJ: Ablex Publishing, 1983, 69-102.

Investigates the development of discourse production skills of 18 six- and 18 nine-year-olds by using two modes of reproducing a two-minute videotaped skit of a Bert and

Ernie episode from *Sesame Street*. After viewing the skit twice, children reproduced the story by acting it out with puppets or by telling the story to another person (narrative recall). They then viewed the skit again, but were interrupted at predetermined times and asked probe questions. The protocols were coded in three ways: by Fredericksen's propositional analysis, regrouping the propositions under structural categories parallel to Stein and Glenn's, and comparing information in recall and the answers to the probe questions. Among the numerous findings it was noted that six year olds demonstrated more comprehension in the acting out mode than in the narrative mode. Further, for both age groups, the probe questions elicited significantly more information than had been given in the narrative recall.

Bisanz, Gay L., & Voss, James F. Sources of knowledge in reading comprehension: Cognitive development and expertise in a content domain. In Alan M. Lesgold & Charles A. Perfetti (Eds.) *Interactive Processes in Reading*. Hillsdale, NJ: Lawrence Erlbaum Associates, 1981, 215-239.

Reviews research on how various types of knowledge and levels of expertise influence the comprehension process. In the first section, the relation between children's knowledge and story comprehension is discussed. Results of research are presented that support the thesis that comprehension should be investigated in relation to the types of knowledge that children have at different levels of cognitive development. Differentiates the roles of semantics and comprehension strategies, and posits further research topics and methods in this area. In the next section, comprehension is examined in relation to levels of knowledge within a particular content domain, using baseball as the subject. Concludes with a summary and a critical commentary.

Flammer, August, & Tauber, Marianne. Changing the reader's perspective. In August Flammer & Walter Kintsch (Eds.) *Discourse Processing*. Amsterdam & New York: North-Holland Publishing Company, 1982, 379-391.

Studies the effects of reader's perspective on the immediate and delayed recall of text. Subjects were 72 Swedish undergraduates who read a 748 word passage written in German. The text described a boy introducing a friend to his parents' house while nobody else was home. There were three pairs of experimental conditions: reading from the perspective of a burglar or reading from the perspective of a potential homebuyer; recalling the story from the same perspective as reading (no switch) or recalling the story from the other perspective (switch); and completing the recall test immediately or after a 20 minute delay. Recall from a shifted perspective was significantly lower than recall from an unshifted perspective. Delayed recall was significantly lower than immediate recall. There was significantly higher recall from the burglar perspective than from the homebuyer. None of the interaction was significant. It was concluded that the text's own perspective overrode the special perspectives as instructed.

Kimmel, Susan, & MacGinitie, Walter H. Identifying children who use a perseverative text processing strategy. *Reading Research Quarterly*, Winter 1984, *19*, 162-172.

Identifies 16 fifth- and sixth-grade children who tended to perseverate in their initial attempts to make sense of text and explores the effects of the strategy on recall and comprehension of text. To identify pupils, a screening instrument was developed which consisted of 24 deductive style and 24 inductive style paragraphs, each followed by a multiple-choice main idea question. Perseverative subjects were those children with the largest difference score between the two and with many more errors on the inductive paragraphs. In addition, there was a comparison group of 16 children whose overall score on the test materials was equal to the perseverative group but who did not demonstrate difficulty with inductively structured text. Children were then given four tasks to complete: 1) 12 misleading paragraphs each followed by a multiple-choice question; 2) recall of silently read inductive paragraphs; 3) a word-finding task in 24 paragraphs, 12 inductive and 12 deductive; and 4) four inductive and four deductive paragraphs to read while rate was recorded. Performance of the two groups on the three tasks which differentiated them were significantly different and also consistently different across almost all subjects. Inductively structured text was more difficult for perseverative readers to comprehend. On the recall task, the two groups recalled approximately the same number of words, but their recalls were qualitatively different. Perseverative children tended to omit important structural key words, whereas comparison children tended to include key words that cued the inductive structure of a paragraph.

ANDERSON, RICHARD C.; MASON, JANA; & SHIREY, LARRY. The reading group: An experimental investigation of a labyrinth. *Reading Research Quarterly,* Fall 1984, *10,* 6-38.

Examines whether a meaning emphasis or an emphasis on accurate oral reading produces better recall and speed and accuracy of pronunciation. In the first of two experiments, 259 third graders were included as subjects. Of these, 161 were administered an adapted test to assess introversion-extroversion, test anxiety, and internal locus of control. Based on teacher judgment, children were assigned to homogeneous or heterogeneous ability reading groups consisting of four pupils each. Half of the groups received a lesson in which meaning was emphasized, half received a lesson in which accurate, fluent oral reading was stressed. Materials consisted of 36 unrelated sentences, varying in interest and in readability. Recall of sentences and speed and accuracy of pronunciation of difficult words from the sentences were assessed. In Experiment 2, 86 third-graders were randomly assigned to the two treatment conditions but individually given 14 sentences with easier words. Results of both experiments indicated that a meaning emphasis gives better results with average and above average readers regardless of the difficulty or interest of the materials, length of the task, or grouping arrangements. In Experiment 2, findings suggested that a meaning emphasis was also superior for poor readers, provided the task was within their ability range. Greater lesson mastery was achieved when children were taking a turn than when they were following along. Interest accounted for 33.8 times as much variance in sentence recall as readability.

BAKER, LINDA. Working memory and comprehension: A replication. *Bulletin of the Psychonomic Society,* January 1985, *23,* 28-30.

Replicates with modifications an earlier study exploring the relation of a reading span test and reading comprehension. A reading span test was developed consisting of 75 sentences ranging in length from 13 to 15 words and with all terminal words containing three syllables. The comprehension task consisted of 12 narrative passages of 12 sentences each. Passages were followed by two fact questions and an anaphora resolution question. After the 28 introductory psychology undergraduates had read and answered questions for all passages, they were again shown the passages containing questions they had answered incorrectly and were asked to find the answers. *Scholastic Aptitude Test* (SAT) verbal scores were obtained. Mean reading span was 4.13 with a range of 2 to 7. Intercorrelation coefficients computed with reading span were .67 with SAT Verbal scores, .45 with anaphora referent scores, and .53 with fact questions. SAT Verbal scores correlated .65 and .55, respectively, with pronoun questions and fact questions.

ANDERSON, ORA STERLING, & ACKER, ROSE L. An investigation of the effects of prior knowledge on comprehension of discourse by good and poor comprehenders. *Reading World,* December 1984, *24,* 87-95.

Investigates the performance of good and poor comprehenders on two ambiguous passages. Undergraduates (n=22), who had attained stanine scores in the range 2 to 6 on the

Iowa Silent Reading Test, read two 145-word texts. One passage could be interpreted as related either to prison or wrestling, and the other as related to playing either cards or music. Subjects wrote a free recall of the passage and then answered multiple-choice comprehension questions. They then completed a debriefing questionnaire and autobiographical inventory as assessments of prior background knowledge. Recalls were stored using an idea unit format. There were significant differences for passage order ($p < .05$) and sex of subject ($p < .05$), but no difference was observed between the performance of good and poor comprehenders, and there was no effect of background knowledge on passage interpretation or comprehension.

ANDERSSON, BILLIE V., & BARNITZ, JOHN G. Cross-cultural schemata and reading comprehension instruction. *Journal of Reading*, November 1984, *28*, 102-108.

Discusses the role of background knowledge in comprehending what is read and cites research relative to cross-cultural influences on comprehension. Research related to cross-cultural schemata and adults, children, and second language learners is briefly noted. Implications for reading comprehension instruction are noted.

FELDT, RONALD C. Reading knowledge and reading comprehension of fourth-grade children. *Perceptual and Motor Skills*, February 1985, *60*, 229-230.

Attempts to identify which aspects of reading knowledge account for the variance in reading comprehension. Subjects were 22 10-year-olds who were individually interviewed. Interview questions were developed to assess knowledge of personal ability to read, the semantic utility of paragraph structure, differences in verbatim versus gist recall, locating important words in skimming passages, identifying the importance of previewing/reviewing passages, and an estimate of time spent in extracurricular reading at home. Responses were coded on a 0 to 3 scale and raw scores pooled for all questions within each set. The reading comprehension score on the *Iowa Test of Basic Skills* was then used as the dependent variable in a multiple regression analysis. The best composite of independent variables included recall and skimming knowledge plus a time estimate ($R^2 = 48.8\%$). However, with IQ scores on the *Cognitive Abilities Test* controlled, the relation between reading knowledge and comprehension was not statistically significant.

CUNNINGHAM, DONALD J., & MCCOWN, RICK R. The retroactive effects of prior knowledge and elaborative processing on prose retention. *Journal of Experimental Education*, Winter 1984/85, *53*, 77-85.

Investigates the effects of prior knowledge and processing level on the retention of connected discourse. The 180 undergraduate subjects read a 423-word biographical passage in one of six conditions. In each condition the experimental group read the biographical passage about George Corley Wallace, and then a similar passage about Louis Armstrong. The control group in each condition read the Wallace passage and then engaged in an unrelated letter identification task. The conditions were that the Wallace passage was: A) labeled as that of a fictitious person; B) labeled correctly; C) unlabeled until after reading, then labeled correctly; D) labeled as in B, then labeled correctly after reading, E) as in C except the identity not revealed until after retention was assessed; F) as in D except that identification was delayed as in E. Subjects' free written recalls were collected for the Wallace passage after the second task, and then a 20-item short-answer criterion test was administered. Recall protocols were scored for the presence of idea units for all conditions. Where the Armstrong passage had been read, the intrusions of information from this passage were noted for both the recalls and the short-answer test. Among other results, it was found that when control group mean scores were used as expected values, derived scores for condition B were better than those in condition A for the short-answer test ($p < .05$), and all conditions provided better scores than condition A on the free recall test ($p < .01$). On the short-answer test more intrusions occurred in conditions E and F than the other conditions ($p < .01$).

CALLAHAN, DANIEL, & DRUM, PRISCILLA A. Reading ability and prior knowledge as predictors of eleven and twelve year olds' text comprehension. *Reading Psychology,* 1984, *5*(1-2), 145-154.

Investigates the effects of reading ability and level of prior knowledge on the comprehension of written prose. Subjects were high ability (n=10) and average ability (n=10) fifth and sixth graders, half of whom were females. Reading ability was assessed by the *California Achievement Test* or the *Metropolitan Achievement Test.* The three passages used in the study were approximately 100 words in length. Each passage was prepared in each of three conditions: 1) intact, 2) with the topic sentence deleted, and 3) with the topic and concluding sentences deleted. A 20-word vocabulary test, which included 12 key words from the passages, was administered 10 days prior to the subjects reading the passages. Pupils were required to write down everything they knew about each of the words, and responses were scored for meaning. Each child read each of the passages in one of the conditions. Oral recalls were collected individually and scored against a propositional analysis of each of the passages. For the conditions in which sentences were deleted, a replacement for the missing sentence (cloze sentence) was solicited. These sentences were scored for appropriateness on a five-point scale. A step-wise regression analysis indicated that prior knowledge (as measured by the vocabulary test) was the best predictor of recall, inference, and cloze, and readability was the best predictor for summary sentences. Main effects for passages collapsed over conditions and conditions collapsed over passages were tested in a mixed analysis of variance. There were ability differences for recall ($p < .001$), summary ($p < 01$), and topic sentence cloze ($p < .011$). For recall there were passage differences ($p < .004$), and there was a passages by ability interaction ($p < .008$).

LANGER, JUDITH A. Examining background knowledge and text comprehension. *Reading Research Quarterly,* Summer 1984, *19,* 468-481.

Investigates the relation between background knowledge and reading comprehension, and assesses the value of certain prereading activities in relation to background knowledge. Subjects were sixth-grade pupils (n=161), who were classified as above-, on-, or below-level readers on the basis of the reading comprehension subtest of the *Iowa Test of Basic Skills.* The *Cognitive Abilities Test* provided IQ scores for all groups. Two sixth-grade social studies passages of approximately 700 words each were used. A 20-item reading comprehension test was devised for each passage, with 10 questions dealing with superordinate information, and 10 with subordinate information. Each set of 10 questions was evenly divided into textually-explicit and textually-implicit questions. As a measure of background knowledge subjects wrote all they could about three key words from each passage. A week later subjects were evenly distributed among four prereading activities. The Pre Reading Plan (PReP) involved group discussion of key concepts, following three steps: initial associations with the concepts, reflections on these, and the reformulation of knowledge. The other three activities involved a general discussion of the topic (Motivation), a nontopic related discussion (Distractor), and no activity. After the prereading activities the free association measure was readministered, followed by a reading of the texts and the comprehension measure. The free association responses were scored on a three-point scale in terms of knowledge organization. Among other findings were that level of background knowledge was a significant predictor of reading comprehension ($p < .05$), that the PReP group did better than the other two groups on passage-specific comprehension questions ($p < .05$), and that prereading activities had the largest effect on the on-level reading group and no effect on the below-level group.

FREEDLE, ROY, & FINE, JONATHAN. Prose comprehension in natural and experimental settings: The theory and its practical implications. In Sheldon Rosenberg

(Ed.) *Handbook of Applied Psycholinguistics: Major Thrusts of Research and Theory.* Hillsdale, NJ: Lawrence Erlbaum Associates, 1982, 257-294.

Summarizes some key concepts that have been proposed in the last decade for studying prose processing and its applications. Topics in this review of the literature included staging, structures at different levels of text, rhetorical predicates, and dynamic information-processing approaches to understanding text comprehension and recall. The authors differentiate research studies into the categories of laboratory and naturalistic. Throughout the review, suggestions for needed research are presented.

Barnett, Jerrold E. Facilitating retention through instruction about text structure. *Journal of Reading Behavior,* 1984, *16*(1), 1-13.

Investigates the effectiveness of instruction in the use of text structure for comprehending and recalling textual information. Subjects were 90 undergraduates enrolled in an introductory level psychology class who were randomly assigned to one of three treatment groups. They received either a brief description of the organization of a text immediately prior to reading the text, after reading but before recalling the text, or they received no text-organization instruction. Half of each group read text following a research report format; the other half read the text organized into a journalism structure. For both text structures, subjects who received instruction prior to reading performed better on a delayed free recall test than subjects who received instruction prior to recall or than subjects who received no instruction. Subjects who received instruction prior to reading also had better recognition scores than subjects who received instruction prior to recall. Instruction prior to recall had no significant effect relative to the no-instruction control treatment. The research report structure led to better performance than the journalism structure.

Graesser, Arthur C.; Robertson, Scott P.; & Clark, Leslie F. Question-answering: A method for exploring the on-line construction of prose representations. In Jonathan Fine & Roy O. Freedle (Eds.) *Developmental Issues in Discourse,* Vol. 10. Advances in Discourse Processes. Norwood, NJ: Ablex Publishing, 1983, 41-68.

Conducts two studies with college students to explore how the comprehender generates information while reading that is either confirmed, and thus preserved, in final prose representations, or disconfirmed, and thus altered. In both experiments why- and what-happened-next questions were asked of target sentences presented in three different context conditions: no context, just the isolated sentence; prior context, in which previous passage content was presented; and full context, in which the entire passage was read before the questions were presented. There were 27 target sentences in Experiment 1, in three kinds of context: narrative, expository and persuasion. In Experiment 2, all subjects read the target question from each of four stories in one of the experimental contexts. Among other numerous findings, it was noted that 53% of inferences generated on the basis of one sentence are disconfirmed by later reading. Also, prior-context-driven inferences have a lower likelihood of being disconfirmed by subsequent context than statement-driven inferences.

Berndt, Rita Sloan. Phonological coding and written sentence comprehension. In Elinor Linn Harwig (Ed.) *Annals of Dyslexia,* Vol. 33. Baltimore, MD: The Orton Dyslexia Society, 1983, 55-66.

Summarizes selected research relating to the hypothesis that availability of phonological information about printed words is necessary for the syntactic analysis of written sentences during comprehension. Research on which subjects are required to perform a secondary task (interference) while judging the acceptability of sentences or generating a phonological code is discussed.

Risko, Victoria J., & Alvarez, Marino C. Using a thematic organizer to develop conceptual comprehension in fourth, fifth, and sixth grade remedial readers. In George H. McNinch (Ed.) *Reading in the Disciplines*. Second Yearbook of the American Reading Forum. Athens, GA: The American Reading Forum, 1982, 58-61.

Investigates the effect of reading a thematic organizer prior to a text on comprehension. Subjects ($n = 24$), who were fourth, fifth, and sixth grade below average readers enrolled in a university reading clinic, were randomly assigned to experimental and control groups. Members of both groups received either one-to-one or one-to-two instruction from preservice teachers for six sessions. Data for the study were collected from the sixth session and after a two-day delay. The experimental group read a thematic organizer prior to reading a social studies passage at each session. A thematic organizer consisted of three paragraphs concerning the concept to be studied, two sentences containing the concept which the students had to restate in their own words, and six or seven sentences requiring a true/false decision during or after reading the passage. The control group was given a set of prereading questions which they subsequently answered. Data collected were student retellings, scored in terms of idea units, and answers to five literal and five inferential questions. The experimental group was better at literal retellings ($p < .03$), inferential retellings ($p < .001$), literal questions ($p < .001$), and inferential questions ($p < .001$). They also recalled more important idea units than the control group during both immediate and delayed recall.

Brozo, William G. Pre-questions for prose learning with reading-anxious college students. *Forum for Reading*, Spring/Summer 1984, *15*, 71-75.

Explores the effect of providing pre-questions on the reading comprehension of high reading anxious students. From a total group of 151, a group of 49 freshmen nursing students was identified as high reading anxious and low in reading comprehension by means of the *Reading Anxiety Scale* (RAS) and a score below the 50th percentile on the Paragraph Comprehension subtest of the *McGraw-Hill Reading Test*. Two experimental and a control group were established. Treatment 1 (T1) was provided with pre-questions designed by the researcher; Treatment 2 (T2) group was given pre-questions in which text headings and subheadings were turned into who, what, where, when, how, and why questions. Subjects were given a passage of about 1,400 words to read followed by 27 multiple-choice questions. The *State/Trait Anxiety Inventory* (STAI) was administered immediately before and after the reading of the passage. The correlation coefficient between RAS and comprehension scores was -.57; 33% of the variance on paragraph comprehension was accounted for by variance on the RAS. The T1 group was the only group to show significant decrease in anxiety on the STAI. The pre-question treatment had no effect on comprehension scores.

Erwin, Jr., Robin W. Current reading research for developmental educators: Important issues in comprehension research. *Research & Teaching in Developmental Education*, 1985, *1*(1), 5-11.

Reviews recent selected research into comprehension with special focus on three studies dealing with summarization skills. Concludes that teachers are unsure of what to teach when teaching skills in this area and that college students experience difficulty with tasks requiring summarization skills.

Holliday, William G.; Whittaker, Harold G.; & Loose, Kenneth D. Differential effects of verbal aptitude and study questions on comprehension of science concepts. *Journal of Research in Science Teaching*, February 1984, *21*, 143-150.

Assigns 217 eighth graders to a text-only, text-question, or placebo treatment and notes the effects on comprehension of science concepts. Subjects were administered the vocabulary test from the *Kit of Reference Tests for Cognitive Factors* and then randomly assigned to one of the three treatments. Experimental subjects read a 538-word text on five fossils. Question groups received 20 questions consisting of 28 fill-in-the-blank queries about the text. A posttest required identification of 40 fossil specimens. Placebo groups obtained low scores on comprehension. Low verbal subjects scored higher when given text-only rather than a text-question treatment. High verbal performers were not differentially affected.

Reutzel, D. Ray. Effectiveness of adjunct story frames on children's reading comprehension. *Reading Improvement*, Fall 1984, *21*, 182-188.

Reports findings of two experiments studying the effectiveness of adjunct story frames on the reading comprehension of 101 fifth graders. Subjects were divided into high, medium, and low blocks based on their prior knowledge about 30 key concepts. They were then randomly assigned to either a control or story frame treatment. Two 300-word passages from basal readers were selected. For the frame group, adjunct story frames were inserted in the margins of the passages at points in the text adjacent to the information pertinent to the adjunct story frame to be completed. Experimentals were shown the incomplete frames and asked to predict solutions to each frame. They then read the story and completed the frames at the end of each paragraph. Controls were given a directed reading activity in which they predicted responses to questions related to the passages. They then read the passages and were asked to study for a test using their own study techniques. All children were asked for written free recall for each passage. Results indicated no significant difference for using story frames before or during reading when compared with the control group's directed reading and own study techniques.

Lovelace, Terry. Secondary students' free recall as a measure of comprehension and equivalency of content area paragraphs. In George H. McNinch (Ed.) *Reading in the Disciplines*. Second Yearbook of the American Reading Forum. Athens, GA: The American Reading Forum, 1982, 92-97.

Investigates the equivalency of three paragraphs from an informal reading inventory in terms of the recall of ninth- and eleventh-grade students. Subjects (n=40) were honors students in the top half of their classes as measured by grade point average. Students completed a knowledge inventory using a five-point Leikert scale, to determine self-assessed knowledge of specific topics. They then read one of three expository passages selected at random from the *Ekwall Reading Inventory*. The topics of the paragraphs were lunar exploration, the ostrich, and the rubber tree. Oral recall protocols were collected, and scored twice; once for retention of exact wording, and then for retention of weighted wording. This latter procedure assigned each word a weighting between 1 to 6 based on parts of speech. Students' recall scores, both exact and weighted, were higher for the rubber paragraph than the moon paragraph ($p < .05$). Ninth- and eleventh-grade students also differed in performance on the three paragraphs (scores and significance level not reported). Correlation coefficients between scores on the knowledge inventory and recall were low.

Haynes, Jack E., & Fillmer, H. Thompson. Paraphrasing and reading comprehension. *Reading World*, October 1948, *24*, 76-79.

Examines the relation between skill at paraphrasing and reading achievement scores for 105 pupils at each of grade levels 4, 5, and 6. In addition, three methods of assessing paraphrasing skills were compared. Subjects were administered the *Gates-MacGinitie Reading Tests*, Survey D, and those scoring at or above grade level were divided by sex and assigned randomly to one of three groups. Three instruments were used to assess paraphrasing ability: 1) the *Deep Structure Recovery Test*, in which children selected the one sentence from a group of three which was not a paraphrase of the other two; 2) a pair of sentences in which children were to fill in words that had been deleted from one sentence so that it paraphrased the first sentence; and 3) rewriting of a sentence so that it had a different surface structure, but the same deep structure. Pearson product-moment coefficients were computed between each paraphrasing method and comprehension scores on the Gates-MacGinitie. Coefficients obtained were .4119, .3695, and .6022, respectively, for the three methods.

GARNER, RUTH; BELCHER, VIVIAN; WINFIELD, EVELYN; & SMITH, TERRIE. Multiple measures of text summarization proficiency: What can fifth-grade students do? *Research in the Teaching of English*, May 1985, *19*, 140-153.

Investigates the ability of successful and less successful upper-elementary learners to summarize text. Thirty suburban Maryland fifth graders were categorized as successful or less successful readers based on their *California Achievement Test* scores. A 213-word, five paragraph descriptive text on meteors, meteorites, and meteoroids was rated by 17 doctoral students as to importance to text summary of each sentence in the passage. All subjects read silently and produced a summary. Next, each reflected on and discussed their summarizing process. Finally, the subjects viewed videotapes of others describing good, medium, and bad summarizing strategies and reading their resultant summaries, using researcher-designed scripts. The subjects' summaries were scored against doctoral students' ratings; their judgments of the videotapes were matched against the tapes' predetermined ratings, and their reflection responses were compared against experts' judgments of summarization rules. Mean scores for successful and less successful readers were calculated for the recognition, production, and reflection tasks. Results indicated that less successful readers were significantly less adept at the production and reflection tasks. There were no reader- group differences on the recognition task. The researchers concluded that while these fifth graders have a sense of what a summary requires, they do not have the proficiency to meet those requirements.

HAHN, AMOS L., & GARNER, RUTH. Synthesis of research on students' ability to summarize text. *Educational Leadership*, February 1985, *42*(5), 52-55.

Reviews the research on text summarization skills at varying age levels, and suggests ways that teachers can help children improve those skills. Among the reported findings are that pupils in upper elementary grades are deficient in substituting superordinate terms for lists of items or actions in text, as well as in selecting topic sentences for inclusion in summaries. In addition, children show insufficient planning, condensing, and revising when writing a summary. Poor readers in the eighth grade have difficulty using textual cues to differentiate central from peripheral text information and in using summarization rules to reduce text to its gist. College students routinely miss opportunities to provide topic sentences for summaries. Based on the research, it is suggested that teachers may wish to help students recognize good summaries before both writing and assessing the efficiency of text summaries.

AARONSON, DORIS, & FERRES, STEVEN. Lexical categories and reading tasks. *Journal of Experimental Psychology: Human Perception and Performance*, October 1983, *9*, 675-699.

Studies the reading times (RTs) allotted to words in 18 lexical categories in text. Subjects were two groups of 24 paid undergraduate volunteers who viewed 90 sentences displayed one word at a time on a computer. Subjects in one group were asked for a written recall of each sentence. For subjects in the second group, termed comprehension, a yes/no question followed each sentence. The stimulus sentences consisted of 45 pairs with identical second halves. The first halves varied in such a manner that the same words played different syntactic roles in the second halves. RTs for each word were recorded as well as mean RTs for all of the words in a sentence. Recall subjects showed large variations in RT patterns in response to various linguistic variables while comprehension subjects tended to be consistent in their RTs from one word to the next. RTs among the various lexical categories varied depending on the cognitive task demands. When reading for recall, words in categories emphasizing structure provided stopping points that facilitated a phrase-based organizational strategy. When reading for comprehension, words in categories emphasizing meaning provided places to pick up the semantic highlights of the text. Lexical categories more important for structure received longer RTs from the recall than from the comprehension group. Lexical categories more important to meaning received longer RTs from the comprehension than the recall group.

SHANAHAN, TIMOTHY, & KAMIL, MICHAEL. The sensitivity of cloze to passage organization. In Jerome A. Niles & Larry A. Harris (Eds.) *New Inquiries in Reading Research and Instruction.* Thirty-first Yearbook of The National Reading Conference. Rochester: The National Reading Conference, 1982, 204-208.

Investigates the sensitivity of the cloze test to the integration of information across sentence boundaries. A 275-word expository passage was rewritten so that all sentence lengths were equal to multiples of five. This allowed sentence order to be randomized and still delete identical words, at equal intervening distances. The passage was administered in four forms: intact, with the sequence of sentences randomly ordered, and the same passages in a cloze format. Subjects ($n=80$), who were college students, were randomly assigned to one of four conditions. Subjects with intact passages read the passage twice as if for an examination, while the other students completed the cloze blanks. Cloze completion time and reading time were noted. An intervening multiplication task was completed before all students wrote written recalls. Cloze passages were scored for exact replacements. Recalls were scored in terms of the number of idea units from the original passage. There was no difference in cloze performance due to sentence order. Cloze passages led to lower levels of recall than did intact passages ($p < .0005$) and scrambled passages resulted in lower levels of recall than did sequential passages ($p < .005$). It is concluded that students do integrate information across sentences when completing a cloze exercise, but this information does not aid in the sentence completion activity.

KIRBY, JOHN R. Age, reading ability, and semantic integration: An information processing model. In August Flammer & Walter Kintsch (Eds.) *Discourse Processing.* Amsterdam & New York: North-Holland Publishing Company, 1982, 251-262.

Examines the relation between reading comprehension and semantic integration across three age groups: 7, 9, and 11. There were 29 or 30 children at each age level. Children were classified as high or low comprehenders on the basis of the *A.C.E.R. Silent Reading Test* or the *N.Z.C.E.R. Progressive Achievement Test.* All subjects read 10 three-sentence paragraphs. After a three-minute study period, subjects were given an answer sheet with 40 sentences, four for each paragraph: one true sentence from the paragraph, one false sentence, one true inference, and one a false inference. The dependent variables were the number of true and false sentences and true and false inferences. True sentences and inferences were selected significantly more often than false sentences or inferences for both high and low comprehenders when collapsing on age. The response by age interaction was significant when collapsing on reading ability, with seven year olds selecting significantly more false sentences and inferences. Concludes that the relation between reading ability and semantic integration depends not only upon developmental level, but also upon task demands and subjects' perception of task demands.

LAFFEY, JAMES L. Multi-discipline analysis of subvocalization effects on comprehension. In George H. McNinch (Ed.) *Reading in the Disciplines.* Second Yearbook of the American Reading Forum. Athens, GA: The American Reading Forum, 1982, 105-109.

Reviews research between 1966 and 1981 relating subvocalization to reading and language comprehension. The studies reviewed are discussed in relation to four main areas: 1) subvocalism and its incidence in early childhood language behavior, 2) the relation of subvocalism to rate of reading, 3) the effect of feedback and suppression of subvocalism on related language behaviors, and 4) verbal mediation and its impact on cognitive behaviors. Implications are drawn for teaching.

JENKINS, JOSEPH R., & HELIOTIS, JAMES G. Reading comprehension instruction: Findings from behavioral and cognitive psychology. *Topics in Language Disorders.* March 1981, *1*(2), 25-41.

Examines selected research from the areas of behavioral and cognitive psychology to address dictates to reading comprehension instruction. The authors argue that behavioral research in reading comprehension has produced two major themes: the first stems from the application of behavior analysis procedures to classroom instruction, while the second focuses on curriculum development. Recent research from cognitive psychology, on the other hand, suggests that an important determinant of comprehension is the ability of the reader to crate a relevant context for interpreting the author's message. It is noted that all these aspects of comprehension – motivation, specific skills, and background knowledge – are important and need to be tapped as sources of intervention for readers who are having difficulties.

HIDI, SUZANNE; BAIRD, WILLIAM; & HILDYARD, ANGELA. That's important but is it interesting? Two factors in text processing. In August Flammer & Walter Kintsch (Eds.) *Discourse Processing.* Amsterdam & New York: North-Holland Publishing Company, 1982, 63-75.

Examines the interest and relevance characteristics of three types of text and relates these characteristics to children's ability to recall the texts. The texts were narrative, expositions and mixed. There were two stories for each type of text, each about 230 words long and with a grade four readability. In the first part of the study, the texts were rated by five adults. They were asked first to separate the essential information from the nonessential. Next they noted the interesting and uninteresting parts of each passage. The passages were also segmented into idea units. Information rated as interesting in the narratives was also rated as important. The authors also find that there was no significant relation between interesting material and relevant material for the expository material. In the second part of the study, 27 fifth and 28 seventh graders completed immediate and delayed recall tasks on one of the passages. For both narratives and expositions, more essential idea units were recalled than nonessential.

CHAPMAN, L. JOHN, & ANDERSON, ELEANOR. Children's perception of textual cohesion. In Kari Tuunainen & Alain Chiaroni (Eds.) *Full Participation. Proceedings of the Second European Conference on Reading, Joensuu, 2-5 August 1981, Finland.* Joensuu, Finland: University of Joensuu, 1982, 139-156.

Cites two studies investigating aspects of cohesion in text. In the first, 96 fifteen-year-olds were presented with three versions of text in which a cloze-type deletion pattern was employed. Version 1 (Isolated) consisted of 69 single sentences with one deletion in each sentence. Version 2 (Tied) contained 69 pairs of sentences with a deletion in one sentence and a cohesive tie in the other sentence. Version 3 (Context) contained the 15 passages from which the previous two versions were drawn. Subjects were divided into sets of three who were matched on reading scores. All were given an Isolated version first, followed by one of the three versions. Tied and Context version students showed significantly higher gain scores over their original scores on the Isolated version than did students taking the Isolated version twice. The second study examined the relation among level of text cohesion, reader's previous knowledge, and scores on a comprehension test. One high cohesion and one low cohesion version on each of eight subjects were prepared for use with four classes of 9- and 10-year-old children. Preliminary analyses indicated higher multiple-choice comprehension scores were obtained with the high cohesion condition.

WILLIAMS, JOANNA P. Categorization, macrostructure, and finding the main idea. *Journal of Educational Psychology,* October 1984, *76,* 874-879.

Tests a model for instruction in reading comprehension. Subjects were 24 grade four and 24 grade six pupils. Mean grade equivalent reading composite scores on the *SRA Achievement Test* were 6.2 and 8.1 for children in grades 4 and 6, respectively. Subjects were given 32 paragraphs, each with a topic sentence that explicitly stated both the general topic of the paragraph and the specific topic of discourse. For each paragraph base, three detail sentences were written which exemplified the specific topic of discourse and one sentence was included containing the general topic but not the specific topic of discourse. Paragraph bases were assigned to one of four experimental conditions: 1) topic sentence as the first sentence, 2) no topic sentence, 3) topic or detail sentence only, and 4) three sentences (topic plus two details or three details). Half the paragraphs were 1 or 2, half were 3 or 4. Subjects saw the paragraph, then the target sentence and were asked to tell whether or not it belonged in the paragraph. Sixth graders scored better than fourth graders; performance was better on paragraphs which had topic sentences; performance on three-sentence paragraphs was better than performance on one-sentence paragraphs. Fourth graders performed at a higher level on paragraphs containing topic sentences. However, they showed no improvement as a function of an increase in the number of sentences as did sixth graders.

CECIL, NANCY LEE. Impact of interest on the literal comprehension of beginning readers – A West Indian study. *The Reading Teacher,* April 1984, *37,* 750-752.

Explores the impact of interest, sex, and reading ability on the literal comprehension of 201 students from lower socioeconomic backgrounds who attended public schools on St. Croix, an island in the U.S. Virgin Islands. Subjects were divided into high and low reading groups on the basis of the Reading Comprehension subtest of the *Gates-MacGinitie Reading Test,* and were taught to use an Interest Assessment Device, arranged in a modified semantic differential format, to mark interest in a story after hearing six prerecorded story beginnings. Stories and questions were equated for difficulty on the Spache and Fry readability formulas, and the Botel, Dawkins, and Granowasky Syntactic Complexity Scale. After marking their interest ratings, the children read independently the two stories that they had chosen to be of most and least interest and completed 10 multiple choice literal comprehension questions. Scores on the paragraphs rated most and least interesting were compared and analyzed. A statistically significant difference was found between means of comprehension scores on passages of high and low interest: means were high when interest in the content was high. Differences were not significant when the factors of sex or reading ability were considered.

THOMPSON, BRUCE; GIPE, JOAN P.; & PITTS, MURRAY M. Validity of the Pearson-Johnson taxonomy of comprehension questions. *Reading Psychology,* 1985, *6*(1-2), 43-49.

Attempts to determine classroom applicability of the Pearson-Johnson taxonomy of comprehension questions. Specifically, the study addressed three questions: 1) Do mean scores for the taxonomy categories corresponded to theoretical expectations regarding difficulty?, 2) Do response patterns to questions correspond to the three taxonomy categories (textually explicit, textually implicit, and scriptally implicit)?, and 3) Are the relations among scores on the types of questions logical and to be expected? Eighty-two fourth- and fifth-grade elementary school children, judged by their teachers to be competent decoders and who had average or above comprehension scores, read 11 passages (varying in length from 55 to 217 words) selected from texts not in use at the school. Each pupil wrote answers to 60 questions, representing the three taxonomy categories. Validity of the taxonomy was supported by the finding that the most correct answers were obtained on the textually explicit (TE) scale, while the least correct answers occurred on the scriptally implicit (SI) scale. Results of a principal components analysis identified two factors corresponding to the expected TE and textually implicit (TI) constructs, but SI items did not delineate a discrete factor. Correlation coefficients between item types corresponded closely to expectations, i.e., TE scale scores correlated higher with TI scores (.49) than with the SI scale scores (.26). Similarly, SI scale scores were more highly correlated with TI scale scores (.36) than with the TE scale scores (.26). Results were taken to support the validity of the taxonomy.

BENNETT, J. MICHAEL, & WARK, DAVID M. Literary versus scientific reading in college—a comparative analysis. In George H. McNinch (Ed.) *Reading in the Disciplines.* Second Yearbook of the American Reading Forum. Athens, GA: The American Reading Forum, 1982, 61-63.

Investigates the effect of differing college majors on the reading of literary and scientific text. Subjects (n=77) were male and female undergraduates who were majoring in either Arts disciplines or Science disciplines. The *Nelson-Denny Reading Test* was administered, and the groups were determined to be comparable in reading ability. Subjects read two passages of about 3,000 words, one of which was a literary selection and one a scientific article. Reading time was measured, and comprehension assessed by a 10-items test for each passage. No differences were observed for type of major or sex on either of the measures.

ADAMS, EFFIE KAYE, & SCOTT, ELOIS. Comprehension of critical news items as expressed by college students and adults in business, industry, and religion. In George H. McNinch (Ed.) *Comprehension: Process and Product.* First Yearbook of the American Reading Forum. Athens, GA: The American Reading Forum, 1981, 116-119.

Investigates the reading comprehension of college students and adults on two critical issues of national concern. Subjects were out-of-school adult males (n=65) and females (n=44) in business, industrial, and religious organizations, and college student males (n=46) and females (n=51). Participants read two articles on "The U.S. and Iran: The Hostage Crisis" and "The U.S. Energy Problem" and then completed four multiple-choice questions testing main idea, correct details, inferences, and conclusions and judgments plus a fifth item which required the addition of words or phrases to present a reasonable judgment or conclusion. Adults scored higher than students ($p < .01$), adult males better than college males ($p < .01$), and adult females better than college females ($p < .01$). Males and females in general did not differ on comprehension scores.

FREEBODY, PETER. Text expectations and reading comprehension. *Reading Education,* Autumn 1982, 7(1), 51-58.

Compiles and synthesizes the research on the kind of test expected on children's comprehension. Evidence related to two hypotheses is reviewed: the depth of processing hypothesis and the format-specific processing hypothesis. The former states that children expecting recall-type tests will outperform in all test formats. The research reviewed relative to this was done with memory for word lists. The format-specific hypothesis states that comprehension will differ as a function of the expected test format and that learners will perform better in the expected format. The research supporting this hypothesis is not conclusive.

Aaronson, Doris, & Ferres, Steven. A model for coding lexical categories during reading. *Journal of Experimental Psychology: Human Perception and Performance*, October 1983, *9*, 700-725.

Describes and tests a model to account for reading times (RTs) in sentences as a function of text attributes, task, demands, and individual reading abilities. Words in four sets of lexical categories were used to study text attributes: noun, verb, definiteness, and organizational sets. For task demands, word-by-word RTs were obtained for two reading tasks, retention and comprehension. For individual abilities, RT patterns were examined for slow and fast readers. Two groups of 24 college students each performed either a written recall task or a comprehension task after each of 90 sentences presented on a computer screen one word at a time. Comprehension was assessed by a yes/no statement about the sentence. Two subsets of 45 sentences were matched for length, number of phrases, subjectively rated complexity (3-point scale), and in rated importance of each word to its sentence (5-point scale). Data supported the model and suggested that for comprehension, subjects spent more time coding the meaning attributes of words, particularly for the noun and definiteness sets; retention subjects spent more time coding the structural attributes of words, particularly for the verb and organizational sets.

Anderson, A.; Garrod, S.C., & Sanford, A.J. The accessibility of pronominal antecedents as a function of episode shifts in narrative text. *Quarterly Journal of Experimental Psychology*, August 1983, *35A*, 427-440.

Designs and reports two studies to explore the influence of episode change and character type on the accessibility of antecedents in prose. In the first experiment, 43 paid undergraduates at Glasgow University served as subjects. In the study, shifts in temporal reference were manipulated. Students read 20 four-line passages, each preceded by a title. In the first line, the main character was introduced using a proper name. The second line mentioned a scenario-dependent character who was always referred to by a role. The third line continued the story, and the fourth line introduced a temporal shift either within the normal time boundary for the event in the passage or clearly outside it. Subjects were to add a single sentence which would continue the fragment given. Continuations were scored for incidence of mention of each character and coded for form of mention (full noun phrase or pronoun). In Experiment 2, reading time and question-answering latencies were recorded. Subjects were 40 students at the same university as in Experiment 1. Results illustrated how passage of time served as a cue for recognizing the end of an episode. It is suggested that readers treat the main character in a different way from scenario-dependent characters.

Harker, Judith O.; Hartley, Joellen T.; & Walsh, David A. Understanding discourse: A life-span approach. In B.A. Hutson (Ed.) *Advances in Reading/Language Research*, Vol. 1. Greenwich, CT: JAI Press, 1982, 155-202.

Takes a life-span developmental perspective in discussing recent research and theoretical approaches to understanding text and details two exploratory studies utilizing a life-span approach. In the first study, differences in memory for expository text over a wide range of age groups are examined. Subjects were 34 sixth graders, 38 undergraduates in an introductory psychology class, and 32 college alumni, ranging in age from 66 to 79 years old. Subjects read four 400-word texts adapted from science books; half were asked to recall the information orally while half wrote their recalls. Recalls for one text only were reported. Protocols were compared with the proposition list developed from the text. Few differences were noted for any measures between the two adult groups. However, children had longer reading times, lower recall performance overall, and lower recall performance for three of four classes of propositions. The second study utilized 24 undergraduates and 24 adults, ages 63 to 76. The same four texts as in the first study were given but in two conditions: 1) single sentence at a time on a screen, and 2) a page condition also on a screen. Total reading time and recall were assessed. Both groups performed in a similar fashion across different stories and presentation conditions. A control group of 12 graduate students was then tested in the single sentence condition. No reliable differences in recall were found among the three groups. The pattern in terms of proposition types recalled was similar in both age groups, with predicates and modifiers recalled better than connective propositions. Performance of each individual across stories tended to be consistent, although there was variability between subjects. Total reading time of older adults and undergraduates was similar. However, older adults took longer than graduate students in the single sentence condition.

BOCK, J. KATHRYN, & BREWER, WILLIAM F. Discourse structure and mental models. In Thomas H. Carr (Ed.) *The Development of Reading Skills.* San Francisco: Jossey-Bass, Inc., 1985, 55-75.

Utilizes the research literature in analyzing the problems of discourse comprehension encountered by beginning readers. Three major themes are used in organizing the literature: 1) the general nature of text comprehension; 2) the discourse comprehension ability of preschoolers; and 3) differences between spoken and written discourse. Relative to the latter, the authors noted that spoken discourse is structured in different ways than written discourse, that it taps a narrower range of knowledge, that it uses different anaphoric devices, and that it provides more contextual support than do written texts. Expository prose poses a greater hurdle in the acquisition of discourse comprehension skills than does narrative prose.

GAGNE, ELLEN D.; YARBROUGH, DONALD B.; WEIDEMANN, CRAIG; & BELL, MICHAEL S. The effects of text familiarity and cohesion on retrieval of information learned from text. *Journal of Experimental Education*, Summer 1984, *52*, 207-213.

Examines the effects of familiarity with passage concepts and passage cohesion on long-term recall of passage information. Subjects were 32 seventh- and eight-graders who were paid to participate. Materials consisted of two highly familiar and two moderately familiar passages; familiarity was manipulated by varying the difficulty level of the vocabulary. Each passage had two forms, one high in cohesion and one low in cohesion. Subjects learned one high and one low cohesion passage to an oral recall criterion of about 85%. Fifteen days after learning, subjects were asked for a written recall of the two passages as well as a verbal report of any rehearsal procedures they had used in the two-week period. Recall of propositions from more familiar material was approximately 35% greater than recall of passages with less familiar concepts. No significant differences were found due to cohesion or the interaction of cohesion and familiarity.

GLYNN, SHAWN M., & BRITTON, BRUCE K. Supporting readers' comprehension through effective text design. *Educational Technology*, October 1984, *24*(10), 40-43.

Cites research in reviewing selected literature related to: 1) the cognitive processes in which readers engage when comprehending text, and 2) devices used by authors to support these processes. It is stressed that readers can be aided in comprehending text if authors design their text so that it supports the component comprehension processes that readers perform.

MANELIS, LEON, & YEKOVICH, FRANK R. Analysis of expository prose and its relation to learning. *Journal of Structural Learning*, 1984, *8*(1), 29-44.

Reports three experiments utilizing three approaches to analyzing the structure of expository text in relation to subjects' learning and comprehension. In Experiment 1, four texts were subjected to a microstructure analysis. Four groups of undergraduate psychology students then read one of the four passages, were asked to recall it, read it again, and wrote a 50-

word summary of it. Subjects' protocols were analyzed propositionally. Only the highest degree propositions tended to be included in summaries, whereas recall protocols also included the next lower category of propositions. For Experiment 2, six terms appearing in the four passages in Experiment 1 were identified as key concepts. Undergraduate psychology students were asked to write a sentence about each of the key concepts and three distractors. They were tested in this manner: 1) before reading about the concept of confound, 2) after reading a textbook selection on the topic, and 3) after reading a passage from Experiment 1. Number of cross-references made in sentences were tallied for targets and distractors. Over the course of learning, key terms became more closely related to each other and more distinct from others. In Experiment 3, 14 expert subjects and 25 naive subjects were asked to read a 220-word passage and divide it into three to five major sections. They then were to give their reasons for labeling each major section and to divide each major section into subsections. The basis for each subsection was then described. There was general confirmation of the passage organization between the two groups of readers, and support for the idea of a schema for expository prose.

IRWIN, JUDITH W., & PULVER, CYNTHIA J. Effects of explicitness, clause order, and reversibility on children's comprehension of causal relationships. *Journal of Educational Psychology,* June 1984, *76,* 399-407.

Investigates the effects of explicitness, reversibility, and clause order on the comprehension of causal connectives by children of varying ages and ability levels. Subjects were 80 third graders, 156 fifth graders, and 156 eighth graders. For grade three, six passages were developed from causal relationships appearing in third-grade social studies texts. Three passages contained two irreversible relationships each; three contained two reversible relationships each. Four versions of each passage were written: explicit with normal clause order, implicit with normal clause order, explicit with reversed clause order, implicit with reversed clause order. In explicit versions, the word "because" appeared; in implicit versions, no connective was given. Two questions assessed comprehension: one asked whether causal relationships had been given, and the other asked for recall of the cause for an effect. Similar materials were developed for grades 5 and 8, but varied somewhat in the number and kinds of comprehension assessed. Pupils were assigned randomly to treatment groups and were also assigned to one of three reading ability levels (two levels, medium and high at grade three) based on teacher judgment. Significant effects for reversibility were found at all grade levels. Significant effects for explicitness were found at the two upper grade levels only. Significant effects for clause order were noted for grade three and grade five only, with comprehension scores significantly higher for the groups reading the relationships in the reversed clause order. No significant interactions with ability were found.

CLOER, JR., THOMAS. Factors affecting comprehension of math word problems–A review of the research. In George H. McNinch (Ed.) *Reading in the Disciplines.* Second Yearbook of the American Reading Forum. Athens, GA: The American Reading Forum, 1982, 11-14.

Reviewas research concerning students' comprehension of math word problems from a pedagogical viewpoint and from the perspectives of the math educator and the reading educator. Among the factors identified as affecting performance are textbook readability, vocabulary development, and literal interpretation of the problem.

SEARLS, EVELYN F., & NEVILLE, DONALD D. Sentence-combining improves writing – Can it improve reading comprehension? In George H. McNinch (Ed.) *Reading in the Disciplines.* Second Yearbok of the American Reading Forum. Athens, GA: The American Reading Forum, 1982, 1-3.

Conducts a meta-analysis of 20 studies concerned with the effect of instruction in sentence-combining on written composition and reading comprehension. It is concluded that sentence-combining has a positive effect on written composition, but its effect on reading comprehension is not as clear.

MARTELLO, MARIA F. DAL. The effect of illustrative details on the recall of main points in simple fictional and factual passages. *Discourse Processes,* July/September 1984, *7,* 483-492.

Compares the ease or difficulty with which main points are remembered in factual versus fictional material of varying lengths and in which main points are illustrated with varying numbers of details. Three fictional passages adapted from children's stories and three factual passages from an advanced English text served as the basic materials. For each of the six passages, three versions were prepared of approximately 200 words, 100 words, and 30 words. Shortened versions of stories and factual passages were prepared by removing specific statements from each episode or paragraph. Eighteen Padua University students read one version of each of the six passages. Both order of presentation and length were systematically varied. After reading the text, the students were assigned an intervening task and then asked to recall as much as they could of each text. Two analyses were conducted, the first concerning recall of main points and the second concerned with recall of details. Results showed that for fictional and factual passages the addition of details improved the recall of main points. Overall recall for stories was higher than for essays.

VAN DIJK, TEUN A. *Macrostructures: An interdisciplinary study of global structures in discourse, interaction, and cognition.* Hillsdale, NJ: Lawrence Erlbaum Associates, Publishers, 1980.

Analyzes the global structures, or major units or structures that organize complex information, that are important in several disciplines of the humanities and social sciences. Accounts for these various global structures in terms of macrostructures, which are higher-level semantic or conceptual structures that organize the local microstructures of discourse, interaction, and their cognitive processing. There are separate chapters on: the concept of macrostructure, macrostructures in discourse, macrostructures and superstructure, macrostructures in action and interaction, pragmatic macrostructures and macrostructures in cognition.

GARNHAM, ALAN. Anaphoric reference to instances, instantiated and noninstantiated categories: A reading time study. *British Journal of Psychology,* August 1981, *72,* 377-384.

Analyzes the encoding and instance of category nouns as a function of contextual information about the interpretation which they should receive. Subjects were 16 British university students. There were 32 sets of reading materials, each set consisting of two subject nouns, three predicates, and one question (e.g., was anyone dead?). Subject nouns were always related as a category (e.g., weapon) and an instance (e.g., knife). The first predicate always suggested the interpretation of the category noun as the instance noun (biasing context). The second predicate suggested no particular interpretation of the category nouns (neutral context). By combining each of the two subjects with each of the predicates, four first sentences were constructed. Two different second sentences were constructed from the two subject nouns and the third predicate. The pairs of sentences and the questions were displayed on a video display unit. Dependent variables were reading times and question-consuming times. Reading time of the instance noun in the second sentence was less when the context of the first sentence was biased or suggested the interpretation than when the preceding context was neutral. Concludes that representations set up during reading incorporate both general knowledge and linguistic input and that these representations are more similar to mental models of the world than to semantic representations assigned to sentences by linguistic theory.

BAKER, LINDA. Spontaneous versus instructed use of multiple standards for evaluating comprehension: Effects of age, reading proficiency, and type of standard. *Journal of Experimental Child Psychology,* October 1984, *38,* 289-311.

Investigates the ways good and poor readers evaluate their comprehension of problematic text. Subjects (n = 108) were pupils in fourth and sixth grades, classified as good and poor readers on the basis of their scores on the *California Achievement Test.* Each child read 15 similarly structured passages about three topics. Four of the passages had one word replaced by a two-syllable nonsense word, four passages had a sentence that violated common word knowledge, and four had a sentence that was inconsistent with a previous sentence in the passage. Subjects were tested individually and were told to find the problems either with no specific direction or were given information and examples about the type of problems they were to find. After reading, children were questioned about problems they did not report. Identification of the problems was scored as correct or incorrect, and responses to follow-up questions were scored on a four-point scale related to the degree of questioning necessary for problem identification. Responses to nonproblematic segments of text were coded into seven categories, including lexical problems, external consistency, and internal consistency. Results concerning problem identification revealed that sixth graders identified more problems than fourth graders ($p < .001$), and better readers did better than poor readers ($p < .001$). Children receiving specific information outperformed children who had general directions ($p < .001$), and more nonsense words were identified than violations of external or internal consistency ($p < .001$). Better readers also profited more from specific instructions than poor readers ($p < .05$). In terms of follow-up questions there were effects for grade ($p < .001$) and reading ability ($p < .001$). The application of various standards was examined, revealing that older and better readers used more different standards, and used them more frequently than younger and poorer readers.

COHEN, GILLIAN. Inferential reasoning in old age. *Cognition,* February 1981, *9,* 59-72.

Presents and describes three factors that may contribute to older individuals' difficulty in answering inference questions and attempts to determine the relative influence of each of these factors. The three factors are impaired recall, reduced processing capacity, and impaired reasoning ability. Experiment 1 compared old and young subjects' performance on logical reasoning tasks with written and spoken presentations. The 30 old subjects had an average age of 69 (range 65-79), were in good health, and were retired professionals with a university education or professional training. Their average WAIS digit span was 13 and their average vocabulary score was 69 points (out of a maximum of 80). The 30 young subjects had a mean age of 23 (range 19-29) and were closely matched on education. Their average digit span score was 14 and their average vocabulary score was 69. Test materials were 40 passages, mean length of 35 words, each passage presenting a premise for one of five types of inferences. After reading or listening to each passage, subjects answered questions or presented a conclusion. Older subjects made significantly more errors than younger subjects. Further, older subjects made more errors when the tasks were presented orally, but for younger subjects there was no difference between reading and spoken tasks. The same subjects were used in Experiment 2. This experiment tested ability to construct inferences based on factual knowledge and so to generate the bridging assumptions needed to make sense of the text and to maintain its continuity and coherence. The materials were six stories about 55 words in length: three were implicit texts, three explicit. Dependent variables were reading rate and ability to answer questions related to the implicit and explicit propositions. Young subjects made fewer errors than old subjects. Older subjects made more errors on the implicit tasks than explicit, whereas younger subjects' performance on the two tasks was equal. There was no age effect in reading speed.

IV-22 Research design

SUMMERS, EDWARD G. Bradford's law and the retrieval of reading research journal literature. *Reading Research Quarterly*, Fall 1983, *19*, 102-109.

Examines the distribution of 865 articles across 204 journals as reported in the 1979 annual summary. Nine journals contributed 292 articles; the next 32 journals contributed 271 articles; and 163 journals produced 302 articles. The information is found to conform to Bradford's law of scattering which states that on a particular topic there will be a small core of journals containing a large number of articles accounting for about one-third of the total, a second larger group of journals accounting for another third, and a very large group of journals contributing the final third. Based on the data collected, an argument is made for the continuation of an annual summary.

GUTHRIE, JOHN T.; SEIFERT, MARY; & MOSBERG, LUDWIG. Research synthesis in reading: Topics, audiences, and citation rates. *Reading Research Quarterly*, Fall 1983, *19*, 16-27.

Addresses the current status of research in reading utilizing a three pronged approach: 1) identifying reviews of research, 2) classifying the reviews into topics and publication types, and 3) examining the citation rates of the reviews as an indicator of their influence. A total of 214 articles, 22 single-authored books, and 57 chapters in edited volumes were identified as reviews of research. Reviews were then classified into 23 topic areas and into five categories of type of publication (book, book chapter, review journal, scientific journal, and practical journal). A citation rate was calculated using the Social Sciences Citation Index for the data base. Six topics were each the subject of 20 or more reviews, with 34 review articles devoted to reading disabilities, 32 to program evaluation, 31 to instructional effects, 28 to word recognition, 24 to reading acquisition, and 21 to text comprehension. Reviews most frequently occurred in practical journals (118 reviews or 40% of the total), followed by 58 in scientific journals, and 57 in book chapters. Topics most frequently reviewed in review journals and practical journals tended to be independent of each other but topics in scientific journals, book chapters, and books were similar. Mean citation rate per year was 2.1 with the most frequently cited article receiving 75 citations per year. Range in mean citation rate by topic was from 0 (reading in the content area, literacy in society) to 9.1 (memory/verbal learning).

WHALLEY, PETER. Argument in text and reading process. In August Flammer & Walter Kintsch (Eds.) *Discourse Processing*. Amsterdam & New York: North-Holland Publishing Company, 1982, 495-509.

Reviews briefly some of the inherent difficulties of text processing research and advocates an experimental methodology for the investigation of long term study strategies under naturalistic reading conditions. The major topic addressed is the role of process measures of reading behavior in text research, and, in particular, the use of macro level reading protocol recorders. Describes how to measure eye-movements in a naturalistic setting.

V. The teaching of reading

V-1 Comparative studies

Schmidt, Eunice. Early learnings about written language: A comparison of United States and Danish children. In Karl Tuunainen & Alain Chiaroni (Eds.) *Full Participation. Proceedings of the Second European Conference on Reading, Joensuu, 2-5 August 1981, Finland.* Joensuu, Finland: University of Joensuu, 1982, 318-341.

Explores young children's emerging concepts of print in a cross-cultural study. Subjects were 80 U.S. children and 80 Danish children, 10 boys and 10 girls at ages 5, 6, 7, and 8. Children were individually tested with the *Concepts About Print* test. Sex differences were not significant, either within or across countries. Significant differences were found favoring U.S. children at ages 6 and 7, but no significant differences were noted between countries for ages 5 and 8. Scores on the 24 test items were then analyzed according to four patterns determined by an earlier study: Book orientation skills, Print and directionality, Letter and word concepts, and Advanced print concepts. Although differences between countries appeared on some of the patterns at earlier ages, by age 8 these had disappeared for the most part.

Rodgers, Bryan. The trend of reading standards re-assessed. *Educational Research*, November 1984, *26*, 153-166.

Gives an historical overview of reading attainment in Great Britain utilizing data from various sources but with particular attention to a series of national reading surveys done between 1948 and 1977. Early evidence came from 19th century reports of inspectors and other observers and were generally critical of the reading ability of students. However, records obtained from marriage certificates indicated that the percentage of individuals who could not sign their names had fallen to about 3% by 1900. Additionally, figures for men in the armed services indicated a 20% rate of illiteracy in the mid-19th century, but just under 1% in World War II. More extensive and reliable data began to be collected with the 1948 survey of reading attainment in 11- and 15-year-olds. Following this, testing of 11-year-olds occurred in 1952, 1956, 1964, and 1970 using the *Watts Vernon Test* (WV) and in 1955, 1960, 1970, and 1976/77 using the *National Survey Form 6* (NS6). Assessment of 15-year-olds was carried out in 1948, 1952, 1956, 1961, and 1971 with the WV test and in 1955, 1960, and 1971 with the NS6. Earlier analyses indicated that the overall trend of reading attainment showed a steady improvement with three exceptions: 1) a drop in 11-year-olds' WV scores between 1964 and 1970; 2) a drop in 15-year-olds' WV mean scores between 1961 and 1971; and 3) an increase in the prevalence of illiteracy and semi-literacy among 15-year-olds between 1961 and 1971. However, there were a number of deficiencies in the 1970/1971 surveys as well as grounds for doubting the accuracy of the 1961 data on 15-year-olds. Data from another source, the Medical Research Council's National Survey of Health and Development (NSHD) – the 1946 British birth cohort study, included the WV test administered to 4,014 15-year-olds in 1961. The NSHD data provided little support for a decline in standards from 1961 to 1971.

Sassenrath, Julius; Croce, Michelle; & Penaloza, Manuel. Private and public school students: Longitudinal achievement differences? *American Educational Research Journal*, Fall 1984, *21*, 557-563.

Follows two groups of 49 subjects each who were matched on age, ethnicity, gender, socioeconomic status, and IQ on data accumulated a decade earlier when they had been enrolled in public elementary schools. One group switched from public to private schools with the average amount of time in the private schools being 5.5 years. Remaining subjects had stayed on as public school enrollees. As high school seniors, both populations were retested on reading and mathematics sections of the *Stanford Test of Academic Skills*. Each of the matched segments numbered 24 females and 25 males, with 30 being Anglos, 10 Hispanics, and 9 blacks. Results of this longitudinal investigation did not show any significant mean differences in achievement test scores between the private and public school groups.

Pumfrey, Peter D. Monitoring the reading attainments of children from minority ethnic groups: Summary of a survey report. *Remedial Education*, August 1984, *19*, 129-133.

Describes the extent to which LEAs in England and Wales are assuming authority-wide monitoring of reading standards. In addition, the author sought to discern whether LEAs were able to relate children's reading test scores to their parents' country of origin. In particular, the study was concerned with British West Indies (BWI) pupils. A five-item questionnaire was sent to all 104 LEAs in England and Wales, of which all were returned. It appeared from the data collected that although most LEAs had organized authority-wide testing of reading attainment, most were not able to compare the reading achievement of BWI pupils with the population reading standards in the LEA. Only four of the 104 LEAs both organized testing *and* were able to make the comparison. These four LEAs indicated they collected such data in the interest of pupils who experienced reading difficulties. Overall, there appeared to be no uniform system to identify pupils' ethnic origins, and only a small number of LEAs collected such data.

Carsello, Carmen J. A comparison of study skill attitudes of Asian and American students. In Byong Won Kim (Ed.) *Reading English in Asia*. The First Yearbook of Literacy and Languages in Asia. Seoul, Korea: Literacy and Languages in Asia, 1984, 131-137.

Compares the reported study skills, attitudes and study methods of Asian and American students at the University of Illinois at Chicago. All subjects were administered a 90-item inventory assessing six areas: motivation regarding school, textbook usage and reading, exam preparation and taking examinations, classroom skills and behaviors, use of time for studying, and concentration on schoolwork. The selection of the subjects was unspecified, but there were 43 Asian students and 1000 Americans. The total score of the two groups did not differ significantly. On the six subtests, they differed on only one: classroom skills and behavior. On that task, the Americans scored higher. On 25 of the 90 items, the two groups differed significantly: 13 in favor of the Americans and 12 in favor of the Asians. The questions in which the Asians scored higher indicate they are more industrious and willing to work longer and harder in school work. They chose to give study priority over other activities. Americans appeared to be more self confident, participated more in class discussion and did not get confused or nervous on examinations.

V-2 Status of reading instruction

Hannon, P.W., & Cuckle, P. Involving parents in the teaching of reading: A study of current school practice. *Educational Research*, February 1984, *26*, 7-13.

Samples 16 British infant and first schools in a study of schools' attitudes toward parental involvement in home-based educational activities. Interviews were carried out with the heads, all the available teachers of the top infants' age group, and with three randomly selected children in each teacher's class. In all, 16 heads, 20 teachers, and 60 children were involved. Findings revealed that while there was general support for the idea of parental involvement in the teaching of reading, this stopped short of helping parents listen to their children read at home. Three heads did not allow reading books to go home, while another three preferred them not to. Four heads expressed some reservation about children reading the same book at home and school. Twelve teachers did allow reading books at home, but, of these, nine expressed reservations or misgivings. Almost half of the children said that they read to someone at home. Of the 36 children who could take reading books home, 24 said they did at times and 21 said that they liked it.

WIESENDANGER, KATHERINE D., & BIRLEM, ELLEN D. The effectiveness of SSR: An overview of the research. *Reading Horizons*, Spring 1984, *24*, 197-201.

Reviews and analyzes briefly the findings from research on sustained silent reading (SSR). Sixteen references are cited. Two conclusions are reached: 1) the effect on word recognition and comprehension is inconclusive, and 2) there appears to be a positive effect on attitude toward reading.

OHLER, M. ELAINE. A comprehension-monitoring strategy: Utilizing question-answer relationships. *Illinois Reading Council Journal*, Spring 1984, *12*(1), 25-29.

Overviews current research of a comprehension monitoring strategy utilizing question-answer relationships (QARs) for use by classroom teachers as an aid in comprehension instruction. It is claimed that research has indicated that question-answering comprises a large proportion of students' daily school activities, and questions can be an effective means for improving instruction in comprehension. Likewise, studies investigating an instructional program designed to heighten students' awareness have demonstrated that such endeavors can be effective and easily implemented by teachers as part of their ongoing curricula.

MILLER, G. MICHAEL. Dramatics and reading performance: Theory and research. In George H. McNinch (Ed.) *Reading Research to Reading Practice.* Third Yearbook of The American Reading Forum. Athens, GA: The American Reading Forum, 1983, 23-25.

Reviews research concerning the use of creative dramatics in language arts instruction and its effect on reading performance. Research at the kindergarten and elementary grades is considered separately. At the former level a positive effect has generally been found on language development and reading readiness. With older children results have not always been favorable, but it is concluded that creative dramatics can be especially effective in developing a positive attitude to reading.

WALKER, JAMES E. Study strategies: Too many, too few…or just right? In Delryn R. Fleming (Ed.) *Proceedings of the Fifteenth Annual Conference of the Western College Reading Association*, Vol. 15. Whittier, CA: Western College Reading Association, 1982, 22-29.

Reviews research related to the effectiveness of the SQ3R study technique. Reports that students do change in their approach to study between grades 6-8 and college, and that these changes must be taken into account when conducting SQ3R studies. Concludes that study strategies must be individualized in order to be effective, that old study methods frequently interfere with the process of learning new ones, that the effects of prior knowledge are important, and that SQ3R is appropriate only for those students already able to select essential ideas and synthesize material.

V-3 Early reading

Wepner, Shelley B. Linking logos with print for beginning reading success. *The Reading Teacher*, March 1985, *38*, 633-639.

Tests whether nursery school children, designated as prereaders by their teachers, could profit from using environmental logos as tools for beginning reading instruction. Twenty subjects, approximately half of whom were $3\frac{1}{2}$-year-olds and half $4\frac{1}{2}$, were balanced by age and randomly assigned to either the experimental or control group. The experimental group children received 15-20 minutes of weekly reading instruction with logos for a period of 8 weeks; the control group had no such instruction. All 20 children took pretests and posttests consisting of book handling tasks, a logo identification inventory, an attitude toward reading interview, and word/sentence identification tasks. Book handling, particularly for $3\frac{1}{2}$-year-olds, was more developed after exposure to the experimental instruction. While all children demonstrated some pretest logo awareness, those children who worked with logos were able to identify more logos during the posttest. Competence in reading words in and out of context was greater for the 10 children who received instruction.

Steinburg, Danny D., & Sakoda, Kumiko. Teaching reading to two year olds in a preschool. *The Science of Reading*, October 1982, *26*, 115-130.

Reports the results of a study conducted with 21 Japanese two-year-olds who were taught a four phrase program emphasizing meaningful words, phrases, and sentences in personal context. After 8 months of instruction, children knew a mean number of 101 words, phrases, and sentences, 80% kanji. After 16 months, mean number of words known nearly doubled, and the proportion of phrases and sentences learned increased.

V-4 Reading readiness

Morrow, Lesley Mandel. Retelling stories: A strategy for improving young children's comprehension, concept of story structure, and oral language complexity. *The Elementary School Journal*, May 1985, *85*, 647-661.

Asks whether practice in story retelling can aid kindergarteners' comprehension of stories. In the first of two experiments, four kindergarten classes ($n = 59$) were randomly divided into an experimental and control group. Both groups listened to three picture storybooks. After each story was read, controls were asked to draw a picture of it and experimentals retold the story on a one-to-one basis. With one book, the story was read and children were tested on 10 comprehension questions without either control or experimental treatment (pretest); for two stories, the treatments were used (posttests). The 10 questions consisted of five story structure questions and five traditional comprehension questions. Results indicated some improvement on the total comprehension score of experimentals over controls. The second experiment utilized the same treatment procedures as the first experiment but provided practice and guidance in retelling. Subjects were 39 boys and 43 girls in the fall of the kindergarten year. Again random assignment was made to control or experimental groups and eight storybooks were used. Retellings were evaluated for syntactic complexity and for average length per T-unit; traditional question scores, story structure question scores, and total comprehension scores were obtained. Significant gains were found on all comprehension measures for experimentals over controls. Retelling scores were significantly better for experimentals over controls for total retelling as well as in theme and resolution. No differences were found in retelling in setting or plot categories. Experimentals showed a significantly greater T-unit length and syntactic complexity count.

MORROW, LESLEY MANDEL. Reading and retelling stories: Strategies for emergent readers. *The Reading Teacher,* May 1985, *38,* 870-875.

Summarizes three related studies that focused on the benefits of involving children (total n = 254) in story telling as well as particular strategies for reading stories to children. In Study I, focusing on a simple retelling situation, a total of 59 kindergarten pupils were involved with an experimental subgroup of 29 being invited to retell a story while the 30 controls drew pictures about the story. A 10-item comprehension test followed the story. Analysis of covariance demonstrated a significant improvement for the experimental group over the controls for total comprehension scores. The second study was designed to determine if frequent practice in retelling with guidance might have a greater effect than that revealed in the initial experiment. The 82 kindergarten children heard eight stories over a period of two months, but in the experimental group (n = 38) individuals were guided in retellings by adults who focused on the tales' structural frameworks. Analysis of covariance indicated significant differences between experimental and control groups on the total comprehension test with the experimental group making significant improvement. Analysis of oral language revealed a significant increase in syntactic complexity in the experimental children's retellings. In the third study, 73 kindergarteners were placed in groups in which questions and discussion of structural elements of a story both preceded and followed its presentation; 64 children were placed in groups in which literal, inferential, and critical comprehension questions and discussion preceded and followed story presentation; 57 children were in groups that combined the two kinds of questions; and 60 were in a control body that simply listened to stories. Analysis of covariance demonstrated that the combined group made the greatest gains in both categories of questions, although each of the other experimental sections showed some evidence of spillover; i.e., a directed reading activity that emphasized structural elements in a story also appeared to give better results in traditional comprehension, and vice versa. All three experimental groups showed significant improvement over the controls ($p < .001$).

MARTINEZ, MIRIAM, & ROSER, NANCY. Read it again: The value of repeated readings during storytime. *The Reading Teacher,* April 1985, *38,* 782-786.

Reports one home and one preschool case study from a larger study investigating how children's responses to literature change when they hear repeated readings of a story. Adults read the six initially unfamiliar stories a total of three times. Changes in the preschoolers' talk during repeated readings were classified according to form (whether the preschoolers' talk was a question, comment, or answer); and focus (whether the talk was directed toward title, characters, events, details, setting, language, or theme). Four changes in responses were noted: 1) children talked more when the story was familiar; 2) talk changed form when the story was familiar; 3) talk focused on different aspects of the story with the repeated readings; and 4) understanding grew and processing was more in-depth with the repeated readings.

CONRAD, KENDON J., & EASH, MAURICE J. Measuring implementation and multiple outcomes in a Child Parent Center Compensatory Education Program. *American Educational Research Journal,* Summer 1983, *20,* 221-236.

Documents results of a two-year evaluation of a Child Parent Center Compensatory Education Program (CPC). Two age cohorts, five- and eight-year-olds, were involved with both a treatment and comparison group represented. Five-year-olds with one to three years of experience in the program (N = 227) were compared with 304 similar children within the same school district. At the eight-year-old level, 54 children with prior CPC experience and who were enrolled in expansion (CPX) programs were compared with 425 children in regular classrooms. All schools were in predominantly black, low-income areas. Data collected included observational data; home interviews with a random sample (N = 121); the *Compre-*

hensive Tests of Basic Skills (CTBS); The *Iowa Test of Basic Skills* (ITBS); and the *Intellectual Achievement Responsibility Questionnaire* (IAR), a measure of locus of control. Multiple regression analysis of covariance was used throughout. On achievement measures, CPC pupils scored significantly higher than controls even when locus of control was used as a covariate. CPX children demonstrated a higher internal locus of control than control group children.

Bridge, Connie A., & Burton, Brenda. Teaching sight vocabulary through patterned language materials. In Jerome A. Niles & Larry A. Harris (Eds.) *New Inquiries in Reading Research and Instruction.* Thirty-first Yearbook of The National Reading Conference. Rochester: The National Reading Conference, 1982, 119-123.

Investigates the effectiveness of teaching word recognition with patterned language materials in comparison to the readiness materials of a major basal reader series. Kindergarten children ($n = 16$), who were members of the lowest reading groups, were taught 16 high frequency words using either three patterned books or published initial reading materials which used an oral context-rebus approach. Both groups were instructed by their own teacher for 15 minutes a day for 24 days. The group using the patterned language materials was instructed by a method involving choral reading and a gradual movement from whole sentences to individual words. An oral context-rebus approach emphasizes the use of letter-sound associations and a teacher-provided oral context. Subjects were pre- and posttested on recognition of the 16 target words and 24 other high frequency words. There was no difference in the number of target words learned by the two groups, but the patterned language group learned more nontarget words ($p < .05$).

Reid, D. Kim. Child reading: Readiness or evolution? *Topics in Language Disorders,* March 1981, *1*(2), 61-72.

Examines the way in which the concept of reading readiness has developed since the beginning of the century. Emphases on readiness as the result of maturation or as the result of early experience, which were prevalent until the 1960s, are contrasted with a later interactionist approach. It is argued that recent research suggests that viewing child reading as a continuous evolution of reading behaviors is more appropriate than the concept of reading readiness.

V-5 Teaching reading – primary grades

Katz, Ina, & Singer, Harry. The substrata-factor of reading: Differential development of subsystems underlying reading comprehension in the first year of instruction. In Jerome A. Niles & Larry A. Harris (Eds.) *New Inquiries in Reading Research and Instruction.* Thirty-first Yearbook of The National Reading Conference. Rochester: The National Reading Conference, 1982, 157-165.

Investigates the effects of differential instruction on the use of graphophonemic, morphophonemic, semantic, and syntactic subsystems by beginning readers. Subjects ($n = 91$), who were kindergarten and first grade pupils, were assigned to four treatment groups by stratified random sampling. The treatments consisted of supplementary reading instruction, for 17 sessions of 30 minutes, which emphasized development of a particular linguistic subsystem. The materials, tasks, and teaching strategies for each group were the same, but the instruction emphasized use of the graphophonemic, morphophonemic, semantic, or syntactic subsystems. Children were posttested on the *Metropolitan Reading Instructional Tests* (MRIT), and a criterion referenced test which assessed knowledge of the content of all the instructional treatments. There were differences among the groups on the four subtests of the criterion referenced test ($p < .001$), with groups who received instruction in an area tending to do better than those who had not. The syntactic group also scored better than the semantic group on the auditory discrimination subtest of the MRIT. There were no other differences on the MRIT, and treatment did not affect reading comprehension.

JUEL, CONNIE, & ROPER/SCHNEIDER, DIANE. The growth of letter-sound correspondence knowledge in first grade and its relation to reading achievement and programs. In Jerome A. Niles & Larry A. Harris (Eds.) *New Inquiries in Reading Research and Instruction.* Thirty-first Yearbook of The National Reading Conference. Rochester: The National Reading Conference, 1982, 152-156.

Investigates the relation between instructional materials and the growth and application of letter-sound correspondence knowledge. Subjects (n = 93), of whom two-thirds were Anglo and one-third Mexican-American, were first graders from three schools. All children were fluent English speakers, scored above the 40th percentile on the *Metropolitan Readiness Test* (MRT), and were in the middle reading group in their classrooms. School #1 was in a middle class neighborhood and its pupils were mainly Anglo. Schools #2 and #3 were racially mixed and in lower middle class neighborhoods. Half the pupils were placed in a phonics oriented basal series, and half in a series which focused on high interest stories. Both texts were used in all the schools. Nine tests were given during the school year including the *Iowa Test of Basic Skills*, the *Bryant Test of Basic Decoding Skills*, and tests of vocabulary knowledge from each of the basal series. Analyses were performed to examine the effects of MRT scores, ethnicity, school, basal, and classroom on scores on the tests. The contribution of each major variable is reported for each test. Among other findings were that the basal series had no effect on letter-sound correspondence knowledge at the end of first grade, but that children who have acquired letter-sound knowledge do better both on reading words in their basals, and on words with which they are unfamiliar.

KINNEY, MARTHA A. A language experience approach to teaching expository text structure. *The Reading Teacher,* May 1985, *38,* 854-856.

Reports the development of a five-day lesson sequence to teach the expository structure of comparison/contrast to first graders, using principles of the language experience approach to reading (LEA). Day one involved discussion of how objects were alike and different; day two had children dictating a group story to the teacher; days three and four were practice days using activities that were related to the story; and day five involved rearranging a scrambled version of the dictated story. At the end of the fourth week, posttest scores were significantly higher than pretest scores; recalls were more like the structure of the test passage; and more subjects made use of text structure to recall contrastive statements.

LUM, T., & MORTON, L.L. Direct instruction in spelling increases gain in spelling and reading skills. *Special Education in Canada,* Winter 1984, *58,* 41-45.

Designs a study to compare direct instruction in spelling with a more traditional approach at second grade level. Experimental subjects included 16 children matched with 20 controls on school size, SES, teacher sex and age, and basal reading program. The experimental teacher was given three days of inservice training and the use of the program was monitored once a month by the authors. The control teacher was visited regularly through the year, but no formal monitoring was done. Spelling programs took 20-30 minutes daily. Pre- and posttest measures included the spelling subtest of the *Wide Range Achievement Test*, the *Test of Written Spelling*, and the *Slosson Oral Reading Test* (SORT). Analysis of variance and analysis of covariance were utilized to analyze the data. The experimental program produced greater academic gains on all measures than did the control program. Within both programs, girls made greater gains in spelling than did boys. On the SORT, experimental girls outperformed control girls, but boys in both programs showed similar results.

Sanger, Dixie D.; Stick, Sheldon L.; & Lange, Una A. Integrating language activities into reading instruction. *Reading Horizons*, Fall 1984, *25*, 7-13.

Examines whether low-achieving second grade children, identified as having difficulties with listening comprehension and language deficiencies, demonstrated improved performance with an integrated reading-language approach (following verbal directions, understanding action in pictures, describing objects or pictures, using correct grammatical structures, retelling stories). The subjects were 35 middle-class Caucasian second grade pupils assigned to intact experimental or control groups in two schools. The subjects had been identified as low readers by their classroom teachers according to criteria established in the school district. Pre- and posttest scores were obtained using the *Informal Reading-Language Test* and the *Test of Language-Development*. Observational data in the form of continuous event frequency counts were also collected. The two experimental and two control groups were collapsed for the statistical analysis. Results showed no significant differences between experimental and control groups. When the data were analyzed by teacher there was a statistically significant difference in the scores of the four subgroups on the informal measure subtest Recall and Sequencing of Verbal Material. One experimental teacher accounted for the source of variation between pre- and posttest scores.

Sallee, Ellen R., & Sethi, Renuka R. Effects of adding folklore to basal reading programs. *Reading Horizons*, Fall 1984, *25*, 31-37.

Hypothesizes that the inclusion of folklore in the basal reader program will positively influence reading achievement of 49 second graders. All subjects were randomly assigned to an experimental or a control group, and both sections were pre- and posttested on alternate forms of the *California Achievement Test* (CAT). In addition to receiving their regular reading program, control children were given 30 half-hour sessions of instruction in the basal reading program by the investigator. The instruction included the reading of stories, discussion, follow-up activities, phonics lessons, and comprehension exercises. Experimentals had the regular reading program plus 30 half-hour sessions of additional instruction using folklore. This included fables, legends, myths, tall tales, fairy tales, and folktales. The treatment lasted for six months after which both groups were retested on the CAT. Achievement test findings revealed that both groups had made significant increases in reading achievement, but the gain for the experimentals was greater.

Dziuban, Charles D.; Miller, A. Jeanne; & Eyster, Patricia H. Assessment of a primary school educational program. *Perceptual and Motor Skills*, February 1985, *60*, 134.

Evaluates a state mandated program, the Primary Education Program, in an east central Florida school district, which over the previous five years had administered to kindergarten classes a test of motor, visual, auditory, and language status known as *The Yellow Brick Road*. Second-graders were given subscales of reading, language, and mathematics from the *Comprehensive Test of Basic Skills* (CTBS). A 1979 population was utilized to serve as a control body. A second pool of similar pupils in the newly-installed (1980) program were in the experimental group. Samples drawn involved about 37 schools, 500 teachers, and 12,000 children. Randomly selected samples (programs, n = 227; and nonprograms, n = 223) from each population were compared on scores on *The Yellow Brick Road* and CTBS by multivariate analyses of variance. A small but significant difference favoring children in the experimental program in reading, language, and mathematics was found. It was noted that the differences might well have been related to uncontrolled factors.

BARTLETT, R.; HALL, J.; & NEALE, S. A parental involvement project in the primary schools of south Oxfordshire. *Reading*, December 1984, *18*, 173-177.

Undertakes a description of a parental involvement project in a reading program in certain British primary schools which featured direct instruction of and by the parent group. Consuming six weeks, the program was launched without the presence of pupils; this meeting was then followed by one in which both parents and children participated, by daily home practice sessions, and ultimately by a feedback session that was highlighted by a discussion of project results. Pre- and postmeasures of the *Salford Sentence Reading Test* were employed for the purpose of indicating trends. Comments from parents are presented as well as growth in reading age for the 19 children involved in the first project in one school. Currently five schools are involved and the initial success is reported as having been repeated.

MEYER, LINDA A.; GERSTEN, RUSSELL M.; & GUTKIN, JOAN. Direct instruction: A project follow through success story in an inner-city school. *The Elementary School Journal*, November 1983, *84*, 241-252.

Describes a Follow Through project (Project P.S. 137) located in the Ocean Hill-Brownsville section of Brooklyn. Involved were 12 classrooms, three at each grade level from kindergarten through third grade. The project utilized the Direct Instruction Model, a highly structured educational program. Data are presented from 1973 (when the second cohort of pupils was completing third grade) through 1981. Scores on all subtests of the *Metropolitan Achievement Test* (MAT) were used to compare Follow Through and non-Follow Through groups. Results of three separate evaluations were presented. The pupils in the Direct Instruction Model consistently surpassed MAT reading and math scores of comparable disadvantaged pupils.

HEYDORN, BERNARD L. Effect of practice of correct symbol reversals on reading achievement by first-grade children. *Perceptual and Motor Skills*, April 1985, *60*, 509-510.

Assesses the effects of practice in correcting symbol reversals on reading achievement by first-grade children when there was no significant difference in reduction of symbol reversals between practiced and control groups. First-grade children (41 boys and 36 girls) from lower-middle class backgrounds and from seven different classrooms were given the *Jordan Left-Right Reversal Test*, Level 1, and the *Gates-MacGinitie Reading Tests*, Basic R. Pupils who made four or more symbol reversal errors on the Jordan instrument were randomly assigned to the treated or nontreated groups. The former were given a series of remedial symbol training lessons by their teachers in three 20-minute sessions weekly over a two-month period. The control group received no specific instruction in remediation of reversals. A significant difference emerged in reading achievement from pre- to posttest for practice subjects as well as a significant difference in reduction of errors. However, practice on correction of symbol reversals had no significant effect on reading achievement and experimentals did not reduce symbol reversals significantly more than did the control subjects.

EVANS, MARY ANN. Impact of classroom activities on beginning reading development. In Thomas H. Carr (Ed.) *The Development of Reading Skills*. San Francisco: Jossey-Bass, Inc., 1985, 77-94.

Presents data based on the observation of 20 grade 1 and combined grades 1 and 2 classrooms, half of which were following a language-based experimental curriculum and half a traditional skill-based program. Classrooms were visited for four half days in November and December and about 50 samples were taken of each child's behavior. Data were collapsed across children to yield a profile of each classroom. For reading, portions of the day devoted to word analysis (WA), word practice (WP), context and meaning activities (CM), and silent or oral reading of text (RT) were discussed. Four classrooms were presented in particular. The two traditional rooms presented a blend of all four reading components with a strong emphasis on WA activities. The two experimental classrooms placed relatively little emphasis on WA, with one stressing RT and the other WP. For all 20 classrooms, children in the language-based experimental groups practiced their own personal bank of words from self-dictated stories and also read those stories. Children in traditional classrooms practiced decoding the words in basals and engaged in more WA activities than did experimentals. Year end assessment showed the traditional group scored higher on the *Stanford Reading Comprehension Test* and on an informal assessment measure consisting of questions based on passages from primer level, grade 1, and grade 2 materials. No differences were observed between groups on measures assessing social skills, maturity of speech, information-processing skills, Piagetian operational thinking tasks, and other cognitive skills.

JUEL, CONNIE, & ROPER/SCHNEIDER, DIANE. The influence of basal readers on first grade reading. *Reading Research Quarterly,* Winter 1985, *20,* 134-152.

Examines the role of various word features and basal text factors on the acquisition of word recognition skills by 93 first-graders. Children who received reading instruction using two different basals were monitored throughout their first grade year to determine how well they could recognize the words introduced in their basal readers. All subjects were fluent English speakers and had scored above the 40th percentile on the *Metropolitan Readiness Tests* with no significant differences between groups. They represented the middle reading groups of 11 classrooms in three schools. Both series were analyzed on a number of variables, including number of different words, number of letters, frequency of word repetition, frequency of within-word letter combinations, regularity of letter-sound correspondences, and the summed positional versatility of the bigrams (letter pairs) within words. Three individual testing sessions throughout the school year tapped ability to pronounce core vocabulary from the basals, performance on the *Bryant Test of Basic Decoding Skills,* ability to recognize 200 words unique to their respective series, and reading accuracy on a 110-word connected passage. Multiple regression analyses focusing on subject characteristics and text characteristics were performed to test the impact of the varying factors on dependent measures. Findings indicated that the phonic emphasis series (1972) had more different words, more repetitions of words, and more regular decodable words, while the eclectic basal appeared to more frequently include words exhibiting orthographic distinctiveness (nonversatile bigrams) and word length cues. Children reading in the phonic emphasis series were able to read more different words outside their series and were better able to induce untaught letter-sound correspondences. Two factors were shown to influence growth in letter-sound correspondence knowledge: 1) initial use of text with regular decodable words, and 2) scores on the *Metropolitan Readiness Tests.*

KIRMAN, JOSEPH M. A new elementary level map skill: Landsat 'Band 5' satellite images. *Social Education,* March 1984, *48,* 191-195.

Undertakes a study to determine if third graders can use black-and-white Landsat satellite images. Subjects were 14 boys and 15 girls who were given 17 hours of instruction and one hour of evaluation on using the images. Children prepared a booklet that included a title cover, a line drawing of Landsat orbiting the earth, the Edmonton (Alberta, Canada) road map mosaic of the area covered by Landsat images, a sheet with fill-in lines for geographic locations, and a line drawing of Landsat with spaces to label the parts. For evaluating Landsat image knowledge, a 21-question achievement instrument was constructed and employed. Overall rating of the class on achievement was 81%.

V-6 Teaching reading – grades 4 to 8

HANSELL, T. Stevenson. Observations of interpretive reading discussions in sixth and eighth grades. *Journal of Reading*, November 1984, *28*, 118-121.

Ascertains what occurs as interpretive reading discussions are held among sixth- and eighth-grade pupils. Three groups were studied: two classes of sixth graders, one experimental and one control, who had been identified by English teachers as good readers (experimentals volunteered for the program, whereas the controls participated following a formal invitation); the third group was composed of eighth grade volunteers. Experimentals at both levels were involved in one orientation and 10 discussion sessions over a semester. The control group participated in the orientation and in the first and final sessions of the discussions only. First and last sessions for all groups were videotaped for later analysis. Discussions centered around the Junior Great Books Program and were led by trained individuals. Questions and comments were analyzed. Categories of questions preferred consisted of factual, clarification, interpretive/inferring, and evaluative types. All three groups displayed much the same response pattern, with the two topmost totals falling in the interpretive and evaluative realms. Approximately 75% of the responses fell into categories of higher level thinking. Chi square analyses were performed to compare the performance of each group to itself from the first to the last session and to compare the groups to one another. There were no differences within the groups when the first session was compared to the last, and no differences for age between the two experimental classes. Pupils in the sixth grade control group, however, were significantly different ($p < .05$) from the experimental body at sixth level on both pre- and postmeasures. In both instances the controls responded with more literal and fewer evaluative responses than did controls.

MANNING, GARY L., & MANNING, MARYANN. What models of recreational reading make a difference? *Reading World*, May 1984, *23*, 375-380.

Compares the effects of three models of recreational reading on pupils' reading achievement and attitudes. The three models selected for comparison were sustained silent reading (SSR), peer-interaction, and individual teacher-pupil conferences. Fourth-grade classrooms from 24 schools (8 high, 8 middle, and 8 low socioeconomic levels) were assigned randomly to one of the three treatment groups or to a control group. There were 415 children involved. Pre- and posttest data were collected using the *Manning Reading Attitude Inventory* and the *California Achievement Test*. Experienced teachers were asked to devote 30 minutes per day to recreational reading and one hour daily for developmental reading. Pupils in the peer-interaction and teacher-pupil conference models achieved significantly higher gain scores on the attitude inventory than did the other two groups. Peer-interaction children showed significantly higher gains in reading achievement than did children in the other three groups.

SHELDON, SUSAN A. Comparison of two teaching methods for reading comprehension. *Journal of Research in Reading*, February 1984, *7*, 41-52.

Compares two laboratory methods of teaching reading comprehension: answering multiple-choice questions and restructuring by means of diagrams. The laboratories consisted of two large accordian-type folders, one containing 30 duplicated passages with the second containing 30 worksheets for each passage. A complementary diagram worksheet was developed to match each question-based worksheet provided in the laboratory. A total of 133 eight- to nine-year-olds were compared and matched so as to provide two groups in each of two schools. Subjects were initially tested on a standardized reading test; a nonverbal ability test; and a nonverbal test of intelligence, the *Primary Mental Abilities*. Two tests were given at the conclusion of the training period, the *GAP Reading Comprehension Test* and one that was a composite of sections drawn from four standardized reading tests. Instruction and training continued for eight weeks, with each group receiving two 30-minute sessions weekly in what were termed Extra Reading. On analysis it was found that subjects who had used nonverbal restructuring made significant gains over those who had employed the question-answer methodology. Analysis indicated that poor readers' comprehension scores were differentially enhanced by having used the nonverbal method.

PARIS, SCOTT G., & JACOBS, JANIS E. The benefits of informed instruction for children's reading awareness and comprehension skills. *Child Development,* December 1984, *55,* 2083-2093.

Examines relations between children's reported awareness about reading and their actual reading comprehension skills, and also undertakes to teach children to understand and apply reading strategies more effectively. The subjects were 91 third graders and 92 fifth graders from eight intact classrooms located in four schools. A structured interview task provided the data on reading awareness of children. Three different reading tasks were used to gauge comprehension in order to provide diverse samples of the children's abilities. Children were interviewed individually in the fall and spring in an effort to assess awareness of reading in three general areas: evaluation of the reading task and one's own abilities, planning to reach a specific reading goal, and regulating reading through the use of monitoring strategies. The comprehension subtest of the *Gates-MacGinitie Reading Tests,* a cloze task, and an error detection task were also administered. Each group received four months of instruction on how, when, and why to use reading strategies to enhance comprehension. Pretest coefficients among awareness and comprehension tasks ranged from .17 to .28 at grade 3 and from .33 to .40 at grade 5. Comparisons between pre- and posttests showed that metacognitive instruction significantly increased children's awareness and their use of comprehension strategies.

BAUMANN, JAMES F. The effectiveness of a direct instruction paradigm for teaching main idea comprehension. *Reading Research Quarterly,* Fall 1984, *20,* 93-115.

Investigates the effectiveness of a direct instruction model for teaching main idea. Subjects were 66 sixth graders who were blocked on achievement based on their results on the reading comprehension subtest of the *Metropolitan Achievement Test.* Subjects were than randomly assigned to one of three experimental groups: 1) a strategy group which received intensive main idea instruction according to a direct instruction paradigm developed by the author; 2) a basal group, which received massed basal lessons on main idea from a current basal series; or 3) a control group which performed unrelated vocabulary development exercises. All subjects attended eight instructional sessions over a 2½ week period and were then administered five dependent measures designed by the author: 1) a main ideas in paragraph test; 2) details that support main ideas test; 3) main ideas in passage test; 4) main idea outline test; and 5) a free recall test. The strategy group outperformed both the basal and control group on ability to recognize paragraph main ideas, recognize details that support the main idea, recognize passage main ideas, and compose main idea outlines. No significant difference between groups was found on a free-recall measure. The basal group outperformed the control group only on ability to recognize explicit main ideas. A strong achievement level effect was found, as more capable readers outperformed less capable readers on all dependent measures. No interactions between treatment and achievement level were found.

HANSEN, Jane, & AHLFORS, GEORGANNA. Instruction in inferential comprehension: An extension and a summary. In Jerome A. Niles & Larry A. Harris (Eds.) *New Inquiries in Reading Research and Instruction.* Thirty-first Yearbook of The National Reading Conference. Rochester: The National Reading Conference, 1982, 54-59.

Investigates the effectiveness of instruction in inferential comprehension, as compared to vocabulary and traditional instruction. Subjects (n = 33), who were fifth grade good readers as measured by the *Stanford Achievement Test*, were randomly assigned to three groups. Each group received instruction related to 10 expository passages from various basal readers over a period of 10 weeks. The Important-Ideas Group discussed three important ideas prior to reading, first in terms of prior knowledge relevant to the topic and second in terms of hypothesizing what form similar information might take in the passage. The Vocabulary Group discussed three important vocabulary words from each passage in the same way. Both groups took part in postreading discussions that involved inferential questions. The Traditional Group followed procedures described in the basal manuals. After each passage, subjects completed a worksheet consisting of three factual questions, three inferential questions, and three vocabulary questions. At the conclusion of the study pupils read three expository texts, one each at the fifth, sixth, and seventh grade reading levels. After each selection pupils answered six factual and six inferential questions. No differences were observed among the groups on any of the measures. All subjects scored poorly on the tests, suggesting the passages were too difficult for them.

WHITE, C. STEPHEN, & ALEXANDER, PATRICIA A. Teaching analogical reasoning processes. *Reading World*, October 1984, *24*(1), 38-42.

Conducts a study to determine whether or not average readers in grades 4 and 6 could be taught to improve their abilities to solve analogies. One class at each grade level was given three 50-minute training sessions in analogical reasoning during the regular reading period. A control group at each grade participated in three sessions of a Directed Reading Thinking Activity (DRTA). Performance on analogy problems was assessed by Analogy Test A and B based on the word comprehension subtest of the *Woodcock Reading Mastery Tests.* At grade four, the experimental group performed significantly better than the DRTA group on the posttest of analogies. At grade six, experimentals demonstrated a significant difference between pre- and posttest scores.

SEIDMAN, GARY M. The effects of previewing and the structured overview on the comprehension of sixth grade children. *Florida Reading Quarterly*, June 1984, *20*(4), 14-16.

Compares the effectiveness of previewing and a structured overview as a means of improving reading comprehension of sixth graders. Eighty sixth graders from an urban New York City elementary school were placed into one of three groups: control (n = 25), preview (n = 27), and structured overview (n = 28). A reading selection followed by 10 questions was used as a pretest measure of reading comprehension. Experimental groups were then given 17 instructional sessions over a five-week period. All groups were again tested on the eighth and on the final sessions using passages accompanied by 10 to 13 comprehension questions. At the midtest level and at pretest time, no differences in mean scores were found among groups. At final posttest time, while experimental groups did not differ, both scored significantly better than controls.

Larking, Lewis. ReQuest helps children comprehend: A study. *Australian Journal of Reading*, August 1984, *7*, 135-139.

Hypothesizes that training in the ReQuest procedure improves children's questioning ability, that improvement in questioning varies according to reading ability, and that reading comprehension improves with the ReQuest procedure. Subjects were 158 grade seven pupils in five classrooms in Australian schools. Subjects were given pre- and posttests where they read a passage and listed 10 good questions about the passage. Children also took the *Gap B* and the *Gap R* comprehension tests as pre- and postmeasures. Twenty-four 20-minute lessons on the ReQuest procedure were conducted over a two-month period. Results suggested that questions asked by the children were mainly literal, but that they asked significantly more high level questions at the posttest stage. A positive correlation coefficient was found between reading comprehension ability and the frequency with which subjects asked higher order questions, with a statistically significant difference between pupils in the first and second quartile. Comprehension scores improved significantly, with the lowest quartile subjects improving more than other groups. Observational data included changes in children's attitudes, attention to reading, and participation and discussion.

Boothby, Paula R., & Alvermann, Donna E. A classroom training study: The effects of graphic organizer instruction on fourth graders' comprehension. *Reading World*, May 1984, *23*, 325-339.

Tests the effectiveness of graphic organizers on recall of main ideas by fourth graders. Subjects were 18 children in an experimental group and 20 in a control group. Both groups received instruction using the same social studies materials and tests. Instruction occurred for 40 minutes three times weekly for 13 weeks. Experimentals also received instruction with investigator-prepared graphic organizers designed to reflect either a comparison/contrast or a cause/effect structure. Written free recalls were used to assess immediate, 48-hours delayed, and one-month delayed comprehension and retention. Total recall data were available for 11 experimental and 15 control subjects. On the immediate and 48-hour tests, experimental subjects recalled significantly more idea units than did controls. No differences were found between the groups for the one-month delayed recalls.

Babbs, Patricia J. Monitoring cards help improve comprehension. *The Reading Teacher*, November 1984, *38*, 200-204.

Describes a study with 47 fourth graders (24 experimental, 23 control) of high-average to low reading ability who were taught to use a reading plan sheet and prompting comprehension cards to increase their literal recall of content material in 15 small group sessions of 22 minutes each. Five sessions were related to reading plans before beginning to read, and subjects were asked to consider: 1) what is reading? 2) what is my goal? 3) how difficult is the text? 4) how can I accomplish my goal and 5) how can I check on whether or not I accomplish my goal? Ten sessions practiced with the comprehension monitoring cards. Use of the cards resulted in significantly better factual recall by experimentals of a 420-word social studies passage. This differential in performance was not maintained on a second recall testing or on two standardized reading comprehension tests when the cards were not present for pupil use.

Reutzel, D. Ray. Story maps improve comprehension. *The Reading Teacher*, January 1985, *38*, 400-404.

Presents steps for developing and evaluating story maps and compares the effectiveness of teaching two basal lessons with story maps and with directed reading activities (DRA). Subjects were 102 fifth graders. Prior knowledge was assessed using a free association method and vocabulary was introduced in isolation and in context. The teacher of the DRA group followed basal procedures and discussed a list of written questions prior to the silent reading. The story map group studied and discussed the map before reading the story and made reference to the map while reading the story. Both groups reviewed the material by answering the questions suggested in the teacher's manual. The DRA group studied as for a test while the map group produced the map from memory and checked their map with the original. All subjects then wrote written recalls. Mean number of propositions recalled by the story map group was significantly higher than mean number recalled by the DRA group.

BROMLEY, KAREN D'ANGELO. Précis writing and outlining enhance content learning. *The Reading Teacher*, January 1985, *38*, 406-411.

Compares the effects of précis writing and outlining on the learning of social studies content of 50 suburban middle school subjects, divided into two groups and matched for intelligence and achievement on the *Short Form Test of Academic Aptitude* and the *California Achievement Test*. Each group was instructed in both strategies for a four-week period. Prior knowledge of unit subject matter was assessed with a 10-question pretest: social studies learning was assessed with a 30-item multiple-choice and one essay question test following each of the two units of study; and attitudes toward the lessons were assessed through a written "Postclass Reactions" assessment at the conclusion of the first week of the study, at the conclusion of each unit, and one week following the study. The effects of outlining and précis writing were similar. There were no significant differences in knowledge gained or in attitude. More children reported enjoying the second activity better than the first and preferring the second activity for future use. Twice as many children reported that outlining would help them understand better and do better on tests.

MCNEIL, JOHN, & DONANT, LISBETH. Summarization strategy for improving reading comprehension. In Jerome A. Niles & Larry A. Harris (Eds.) *New Inquiries in Reading Research and Instruction*. Thirty-first Yearbook of The National Reading Conference. Rochester: The National Reading Conference, 1982, 215-219.

Investigates whether training in the rules of summary writing leads to the production of better summaries and improved reading comprehension. Subjects (n = 23), who were fifth-grade pupils, were randomly assigned to three groups. The summary rule training group received approximately 25 minutes training each day in the application of each of six summarization rules. The other groups continued normal classroom activities. As a posttest, two selections were presented to all the groups. The training group was asked to write a summary of each selection, while one control group was given a card listing the six rules and asked to apply them to writing a summary for each selection. All groups then answered 12 comprehension questions on the passages. There were differences in the mean number of comprehension questions answered by each group, with the training group scoring the highest (statistical significance not tested). Analysis of the summaries written by the two groups indicated that the group which received training performed better than the control group.

CUNNINGHAM, JAMES W. Generating interactions between schemata and text. In Jerome A. Niles & Larry A. Harris (Eds.) *New Inquiries in Reading Research and Instruction*. Thirty-first Yearbook of The National Reading Conference. Rochester: The National Reading Conference, 1982, 42-47.

Investigates the effectiveness of teaching pupils to write summary sentences for paragraphs. Graduate students wrote a gist statement of 15 or fewer words for 110 paragraphs from a workbook at the third grade reading level. Substantial agreement was reached with 67 paragraphs, 40 of which were selected for the study, and randomly assigned to 4 sets of 10 paragraphs. From the first set of paragraphs, 30 discrete words were selected and presented to 121 fourth grade pupils for .4 of a second to test speed of word identification. The 10 paragraphs were also presented to these students, who chose one of five gist statements for each text. Pupils (n = 28) who scored 86.7% or higher on the word recognition task and between 20% and 80% on the gist recognition task were selected for the main study. These children were randomly assigned to the experimental and placebo groups. The experimental group was taught to produce gist statements for the second set of 10 paragraphs for nine lessons of 25 minutes each over three weeks. The placebo group was taught by a variety of strategies which focused their attention to the word level of the same paragraphs, over the same time period. The third set of paragraphs was used as a posttest measure in the same way as the pretest. The pupils were also required to write a gist statement for each of the paragraphs in the fourth set. These statements were scored by a simplified text analysis procedure. Both experimental and placebo groups improved their scores on the gist recognition test ($p < .01$), but the amount of improvement did not differ. The experimental group performed better than the placebo group on the gist statement writing test ($p < .05$).

GORDON, CHRISTINE J., & BRAUN, CARL. Story schemata: Metatextual aid to reading and writing. In Jerome A. Niles & Larry A. Harris (Eds.) *New Inquiries in Reading Research and Instruction.* Thirty-first Yearbook of The National Reading Conference. Rochester: The National Reading Conference, 1982, 262-268.

Investigates whether instruction concerning story schemata affects the structure of children's recall and written narratives. Subjects (n = 57), who were fifth-grade pupils, were randomly assigned to experimental and control groups. The experimental group received 15 sessions of instruction in story structure of 30 minutes duration over a 5-week period. Instruction consisted of use of story templates with some text structure categories left open for pupils to complete in relation to three fables, a priori questioning, and the writing of narratives with and without teacher guidance. The control group received instruction related to drama and literature appreciation, and wrote dramatic passages. The pre- and posttest materials were two fables introduced by short scripts to provide background knowledge of the content. Children read and recalled each passage. Subjects were also questioned about each fable, and wrote a narrative for which a one-sentence starter was provided. Recalls and written productions were propositionalized and classified into specific text structure categories. There were no differences between experimental and control groups on the pretest measures. For the posttests the experimental group recalled propositions in more text structure categories than the control group ($p < .001$), answered more questions correctly ($p < .001$), and produced more text structure categories in the writing task ($p < .05$).

COLLINS-CHEEK, MARTHA D. An exploratory study of the use of organizational patterns as an aid to comprehension. In George H. McNinch (Ed.) *Reading Research to Reading Practice.* Third Yearbook of The American Reading Forum. Athens, GA: The American Reading Forum, 1983, 80-82.

Investigates children's use of and the effectiveness of instruction in organizational patterns of text as an aid to comprehension. Subjects (n = 57) were enrolled in two heterogeneously grouped seventh-grade reading classes, one of which was used as the experimental group. Subjects were taught to identify and use four patterns of textual organization in their content area texts for one 30-minute period each day for 10 days. An enumeration pattern was taught by pupils circling the central thought and underlining information which expanded the idea. A relationship pattern was taught by underlining related ideas. A problem-solving pattern involved subjects following and completing an outline. Pupils marked sentences which gave opinions to identify a persuasive pattern. The comprehension and directed reading subtests of the *Iowa Silent Reading Test* were administered eight weeks prior to and immediately after the treatment. No statistically significant differences were observed between the scores of the experimental and control groups on any of the subtests.

Roller, Cathy M., & Schreiner, Robert. The effects of narrative and expository organizational instruction on sixth-grade children's comprehension of expository and narrative prose. *Reading Psychology,* 1985, *6*(1-2), 27-42.

Examines the effects of utilization of narrative and expository organizational instruction on sixth-grade children's comprehension of prose. Sixth-grade good readers (n = 56) were randomly assigned to four instructional treatment groups which were determined by crossing two levels of instruction, organizational and traditional, with two levels of text type, expository and narrative. Within instructional groups, children were randomly assigned to either intact or scrambled testing conditions. Four forms of two passages, approximately 380-words in length, were written containing the same information. In each, 80 words gave the content either a narrative or an expository organization. Passages were expository intact, expository scrambled, narrative intact, and narrative scrambled. Each group received four 30-minute instructional periods on four consecutive days and then was randomly assigned to the eight testing conditions. Subjects read the passages, answered multiple-choice questions, and wrote summaries of what they had read. Results indicated that those who underwent the organizational instruction emphasis wrote better summaries than did their counterparts who received traditional instruction. However, the advantage to the instructed subjects was present only when they worked with well-organized texts; the effects did not generalize to less-organized texts. In addition, there was some evidence that the subjects were choosing the information to be included in their summaries on the basis of where the information was located in sentences in the passages. With reference to the relative difficulty of expository and narrative materials, there were no differences between the groups who read either version. However, the subjects who read the expository versions took longer to read the passages than did those who read narrative versions.

Taylor, Barbara M., & Beach, Richard W. The effects of text structure instruction on middle-grade students' comprehension and production of expository text. *Reading Research Quarterly,* Winter 1984, *19,* 134-146.

Assesses the effects of instruction focusing on text structure in reading on comprehension and recall of content area material. Additionally the effect on expository writing was examined. Three social studies classes of seventh graders (n = 114) were assigned to either the experimental instruction, conventional instruction, or control condition. Seven weeks of special reading instruction was given in both experimental and conventional treatment groups. In the experimental group, children received one hour a week of instruction and practice in how to produce and study a hierarchical summary of social studies material. After studying the summary, they were asked to relate to another student all they could recall about what they had read or written. In the final week, children practiced writing a recall protocol. The conventional group received an hour per week of instruction in the form of a directed reading lesson, including reading the material and writing answers to 15 questions. Partners were used to relate recall of information to. In week seven, children were asked to write recalls. Pre- and posttest measures of reading and writing were collected. Written recalls of information read were collected and a written opinion essay assigned. Results indicated that the experimental procedure improved recall for unfamiliar but not for familiar material and also had a positive effect on the quality of expository writing.

Eeds, Maryann, & Cockrum, Ward A. Teaching word meanings by expanding schemata vs. dictionary work vs. reading in context. *Journal of Reading,* March 1985, *28,* 492-497.

Investigates the effectiveness of three methods of teaching word meaning. Subjects (n =71), who were pupils in three fifth-grade classrooms, were classified as high or low ability pupils on the basis of a multiple-choice vocabulary test. The 85 words on the test were drawn from a novel that was used as the basis of a two-week unit instead of the regular reading program. Children at each ability level were randomly assigned to the two treatment and control groups. All groups read a chapter of the novel each day. In the Teacher Interaction Group, 40 words wre taught by helping pupils relate the words to their own conceptual underpinnings. In the Dictionary Group, teachers supervised pupils as they looked up the words and wrote their definitions. The Control Group worked on the day's unit activities after reading the appropriate chapter. A multiple-choice vocabulary posttest of the 40 words was administered after the two weeks' instruction and again three weeks later. The Teacher Interaction Group had the best vocabulary retention on both tests ($p < .05$), while the Dictionary Group performed better than the Control Group on the immediate posttest ($p < .05$). Although there was an effect for level of ability ($p = .0001$), low ability pupils in the Teacher Interaction Group did as well as or better than high ability pupils in the other groups.

BLIESMER, EMERY P., & JOHNSON, GEORGE S. Use of student-generated questioning procedures to stimulate and promote reading comprehension skills of students. In George H. McNinch (Ed.) *Reading in the Disciplines.* Second Yearbook of the American Reading Forum. Athens, GA: The American Reading Forum, 1982, 28-30.

Reviews selected research on the effect of student-generated questions on reading comprehension, and reports two informal studies with college and with seventh- and eighth-grade students. College students prepared five multiple-choice questions for each of three 400-word passages, and then answered 10 commercially prepared questions for each passage. No formal analysis was undertaken but similarities were noticed between student- and commercially-prepared questions. Positive responses to a similar technique were obtained with the younger students.

RAPHAEL, TAFFY E., & WONNACOTT, CLYDIE A. Heightening fourth-grade students' sensitivity to sources of information for answering comprehension questions. *Reading Research Quarterly,* Spring 1985, *20,* 282-296.

Presents two experiments where fourth-graders were taught to recognize the relation between the kind of comprehension questions and the answer sources (text or personal background) to be used. The two experiments differed in terms of the source of instruction (university researcher versus classroom teacher), the length of the training program (4 days versus 4 days plus an 8-week maintenance period), and the ability levels of pupils (average readers vs. high, average, and low readers). Experiment 1 had 24 subjects taken from two reading classes; Experiment 2 had 180 subjects from 10 classes. The three training workbooks were the same for both experiments. For Experiment 2, a set of maintenance passages was developed to be used weekly following the intensive training week. In addition, teachers in Experiment 2 kept logs of daily procedures and completed a questionnaire on attitudes towards the overall program. For Experiment 1, there were significant multivariate main effects for the text/script contrast and the explicit/implicit contrast, but nonsignificant differences between experimental and control groups on the three dependent measures: hits, response quality, and matches. In Experiment 2, no significant differences were found between the two control groups receiving either practice with the training passages and questions, but no training, or no treatment. For the two training groups (inservice training with materials provided and training with no materials provided), there were no significant differences on response quality on either passage (maintenance and transfer). Significant differences were found on hits and misses, but not on matches between response and location of information. Subjects in both training groups had higher levels of response quality on the transfer passage than did subjects in control groups.

Lemons, Robert, & Malatesha, R.N. Improving reading through training to listen. *Perceptual and Motor Skills*, June 1985, *60*, 788-790.

Investigates the effect of training in listening on the word knowledge and reading comprehension portions of the *Metropolitan Achievement Test* (MAT) for 60 subjects randomly assigned to structured listening (SRA Listening Skills Program, Intermediate Level II), passive listening (stories read by the teacher), and control groups. Subjects were approximately 9 to 10 years old and were similar in socioeconomic status, intellectual, visual, and auditory processes. Reading level was similar (at least 2.5 on the MAT). At the end of nine weeks, significant differences were found among groups, with groups having listening activities scoring higher on the composite scores of word knowledge and reading comprehension. No significant difference was found between structured and passive listening groups.

Sullivan, Kathryn. Vocabulary instruction in mathematics: Do the "little" words count? In George H. McNinch (Ed.) *Reading in the Disciplines.* Second Yearbook of the American Reading Forum. Athens, GA: The American Reading Forum, 1982, 9-11.

Investigates the effect of vocabulary instruction on the mathematical performance of fourth-, fifth-, and sixth-grade pupils. Subjects ($n = 38$), who were participants in a three-week mathematics enrichment program, received two hours instruction each day. One half-hour of the two hours was spent by half the children on drill in basic mathematics while the experimental group received instruction on the meaning of 50 vocabulary words. The words comprised 51% of a sample of 44,394 words from selected K-6 grade mathematics texts. Pupils were pre- and posttested on mathematics computation using the *Metropolitan Achievement Test.* The subjects as a whole made significant gains in their scores ($p < .001$). There was no significant difference in the scores of the experimental and control groups.

Vaughan,Joseph L.; Castle, Gayle; Gilbert, Karen; & Love, Mary. Varied approaches to preteaching vocabulary. In Jerome A. Niles & Larry A. Harris (Eds.) *New Inquiries in Reading Research and Instruction.* Thirty-first Yearbook of The National Reading Conference. Rochester: The National Reading Conference, 1982, 94-98.

Investigates the effects of two methods of preteaching vocabulary on pupils' comprehension of text. Three seventh grade science classes each read three selections from their normal science textbook at one month intervals, and responded to 10 cued-response short answer comprehension questions about each passage. Questions assessed comprehension of superordinate, subordinate, and specific concepts. Each selection was taught under one of three conditions, to one of the classes. In the experience based condition, vocabulary related to key concepts in each text was taught prior to reading by introducing terms similar to each vocabulary item and discussing similarities and differences. In the definition based condition, the vocabulary and definitions were introduced via a ditto or chalkboard. In the control condition, no vocabulary instruction was given. Subjects scored better on the posttests in the experience based condition than in the other two conditions ($p < .001$). Experience based groups outscored the other groups at the subordinate concept level ($p < .01$), and the definition based groups were outscored by the other two groups at the specific conceptual level ($p < .01$).

Turner, Edward C.; Turner, Dorothy J.; & Algozzine, Bob. Independent basal assignments work well for good readers. *The Reading Teacher,* April 1984, *37,* 797-799.

Explains the development of a program that utilized a study packet devised for the use of good readers engaged in using the school's basal reading series on an independent basis. An experimental group of nine fifth-grade independent readers followed the program four times weekly for an hour for a year, employing the study materials provided. A control group of nine met with the teacher for direct instruction also for four occasions weekly for 30-minute sessions and spent an additional 30 minutes doing assignments given in the group. At the end of the school year, the pupils' *Metropolitan Achievement Test* (MAT) scores from grades 4 and 5 were compared, as were scores from criterion referenced testing materials provided by the basal series. Both groups had entry performance scores which were not appreciably different. Both groups evidenced advancement during fifth grade. Statistically significant differences ($p < .05$) appeared in their fifth grade MAT reading scores, all in favor of the experimental group.

Forell, Elizabeth R. The case for conservative reader placement. *The Reading Teacher,* May 1985, *38,* 857-862.

Describes a longitudinal study where 91 children were placed in reading materials according to informal reading inventory criteria for matching books and child. Subjects were enrolled in the same school from third grade through sixth grade, in the same system until the beginning of eighth grade, and took the *Iowa Tests of Basic Skills* (ITBS) yearly. Children received their reading instruction from student teachers enrolled in a reading clinic practicum. Instruction in reading and language arts occurred in homogeneous reading groups for 250-300 minutes per week. Subjects were placed in materials where they had no more than 5% word identification errors and at least 75% comprehension, rather than in grade level materials. Basal readers designated for the grade level were appropriate for only the top half of the children in the study. The others needed readers 1 to 3 years below grade level. Lower groups, placed in comfortable reading materials, improved in percentile rank on the ITBS from the 23rd percentile in third grade to the 48th percentile in seventh grade.

Roser, Nancy, & Juel, Connie. Effects of vocabulary instruction on reading comprehension. In Jerome A. Niles & Larry A. Harris (Eds.) *New Inquiries in Reading Research and Instruction.* Thirty-first Yearbook of The National Reading Conference. Rochester: The National Reading Conference, 1982, 110-118.

Investigates the extent to which pupils need to learn designated "new" vocabulary words of basal readers, and the effect of instruction in these words on reading comprehension. Subjects ($n = 66$), from 12 classrooms in grades 1 through 5, were reading basals at the instructional level as determined by informal reading inventories. Subjects were drawn in approximately equal numbers from middle and low reading groups. Each reading group was tested on the specified "new" vocabulary from two consecutive basal stories in the basal they were currently reading. Children were pre- and posttested individually both in ability to identify words and to supply meanings. The words for one of the two stories were taught to the subjects prior to reading using a technique which included direct teaching, drawing relationships between vocabulary and the readers, and in-depth treatment. No instruction was given for words in the other story, with order of condition counterbalanced across classes. Children answered orally presented literal comprehension questions about each story after reading. Intermediate grade children (grades 3, 4, 5) could identify 72% of the "new" words prior to reading, and provide meanings for 59%. In the primary grades the percentages were 43% and 56%, respectively. Middle groups could supply 64% of the words' meanings; low groups, 48%. Vocabulary instruction affected knowledge of word meanings ($p < .001$), particularly in the low groups. All groups increased their ability to identify the new words, with the primary grades showing more significant gains than the intermediate grades ($p < .05$). Low groups in the intermediate grades who received vocabulary instruction scored higher on the reading comprehension test than those who received no instruction ($p < .01$).

MATEJA, JOHN A., & COLLINS, MARTHA D. A qualitative analysis of content area reading – 1930 revisited. *Reading Psychology,* 1984, *5*(3-4), 219-233.

Reviews and critiques two works from the 1930s on data collected on reading in the content areas in grades 7 and 8. The first article provided information regarding the kinds of reading difficulties that students encountered in the study of American history, mathematics, and general science. The second article emanated from the first, with the premise being that while teachers might well recognize the need for providing guidance in the reading involved in subject matter areas, they simply did not know how to incorporate needed assistance into their teaching. The articles disclosed that students encountered some 50 reading difficulties in their reading of content materials, and how teachers might assist was categorized under five headings. The works are then reanalyzed. Generalizations based on the reanalysis suggest the following: 1) students encounter reading difficulties related to methods of attack, content vocabulary, recognizing relations, and teacher directions; 2) students have difficulties with activities requiring reasoning, thinking, problem solving, and making connections; 3) reading difficulties are encountered at approximately the same rate in history, sicence, and math, but there are unique varieties within areas in the percentages of difficulties; and 4) reading difficulties tend to be specific to a content area. The impact and implications of the works are discussed.

V-7 Teaching reading – high school

NICHOLSON, TOM. Experts and novices: A study of reading in the high school classroom. *Reading Research Quarterly,* Summer 1984, *19*, 436-451.

Seeks answers to questions relating to kinds of reading tasks that are assigned to junior secondary school enrollees in science, English, mathematics, and social studies; kinds of knowledge required for the completion of reading tasks; varieties of strategies employed in coping; and the strategies utilized by low progress readers in completing assignments. A small scale investigation was carried out over six months, focusing on 60 students in two classes of 13- and 14-year-olds in New Zealand. Some 18,000 minutes of class time was spent in observing students over a 16-week period, and more than 3,600 minutes of interviewing was recorded. Reading tasks varied widely across content areas, while the same tasks appeared to require different kinds of understanding, depending upon the content area. Confusions over tasks seemed to be of two different types: either reader-based in which students' own ideas were inappropriate, or text-based in which the text was difficult to understand. The author indicated that while the surface structure of the classroom might suggest that content was being learned, there was often a maze of confusion in the minds of the students.

MARTIN, ELAINE. Information use and learning outcome in contrasting sixth forms. In Peter Fox & Ian Malley (Eds.) *Third International Conference on Library User Education.* Loughborough, Leicestershire, England: INFUSE Publications, 1983, 82-97.

Investigates the effects of two different learning environments provided sixth-form students in two comprehensive schools. Students from the two schools (numbers not reported) were observed as they worked on information tasks in several subjects. Additionally, interviews were conducted with students concerning information use on various tasks and with teachers in order to identify various styles and patterns of information use. Observed subjects were selected by teachers as representatives of those who conformed to the teacher-devised categories of approach to information use. The two school environments differed in that one placed emphasis on independence and encouraged students to seek out, think about, and synthesize information, whereas the other school relied on dictating of notes as the usual teaching method with little encouragement for students to visit libraries other than as a place to do homework. Able individuals appeared to be pushed to a better understanding of a topic in the first school. However, one type of able student was not given adequate guidance in the first school while another category of less able individuals was intimidated by the demand to produce ideas. The environment provided in the second school tended to smother one type of able students' interest. One category of less able students, while more comfortable in the environment of the second school, was not stretched and enjoyment of books was neither indulged nor developed.

SJOSTROM, COLLEEN LANGDON, & HARE, VICTORIA CHOU. Teaching high school students to identify main ideas in expository text. *Journal of Educational Research*, November/December 1984, *78*, 114-118.

Describes a study using two classes of minority 9th and 10th graders enrolled in a voluntary enrichment program and randomly assigned to treatment (n = 9) or control (n = 10) conditions. With the exception of two blacks in the control and one in the treatment group, all subjects were Hispanic. Both treatment and control sections received a 75-minute lesson weekly for four weeks. The treatment pupils were afforded main idea lessons in a sequence identifying topics of paragraphs, explicit and implicit main ideas in paragraphs, and main ideas in passages. A control group received instruction in vocabulary development. An experimenter-constructed measure consisting of a 13-item production test of main idea identification and a passage to be summarized were used along with the comprehension subtest of the *Davis Reading Test* for evaluation. Results indicated that the treatment group was significantly better at identifying explicit and implicit ideas in paragraphs, at restating main ideas in summary form, and at summarizing more efficiently than the group receiving vocabulary work. Instructional effects did not, however, transfer to general comprehension/performance as assessed by the Davis test.

HARE, VICTORIA CHOU, & BORCHARDT, KATHLEEN M. Direct instruction of summarization skills. *Reading Research Quarterly*, Fall 1984, *20*, 62-78.

Teaches summarization skills to 44 minority high school juniors, randomly assigned to either inductive or deductive instruction. Ten control subjects were also included. Three two-hour instructional sessions were given on summarization skills. Pre- and posttesting data included writing summaries. Posttest data were collected immediately, two weeks, and two months following instruction. Summaries were scored for main ideas and use of summarization rules. Multiple-choice and cloze tests were also administered. No significant differences were noted between the two instructional groups in summarization process or product. Both instructional groups were superior to controls in summarization efficiency and summarization rule usage and maintained this superiority two weeks after the end of instruction. The ability to identify implicit topic sentences was not improved.

TABBERER, RALPH. Introducing study skills at 16 to 19. *Educational Research*, February 1984, *26*, 1-6.

Summarizes a report on the Teaching of Study Skills' Project which had been sponsored in England by the NFER between 1979 and 1982. This project had investigated study skills initiatives being introduced for students aged 16 to 19 in schools and colleges. Seventy-gathering. Individuals in some of the 76 schools and colleges were also asked to complete questionnaires eliciting information about their backgrounds, study habits, attitudes and problems, both at the beginning and toward the end of their courses. Students numbering 1,659 from 22 institutions completed the first questionnaire, and 761 responses were obtained on a second questionnaire from individuals in 19 institutions who stayed a second year. The latter group was additionally asked to assess the study skills teaching they had received. Study skills provision was usually organized in one of the following manners at the 16 to 19 level: 1) as a presixth form induction course, 2) as a short program at or near the beginning of the first term, 3) as an induction course with follow-up sessions later in the year, 4) as a course lasting a term, 5) as a General Studies option, 6) as a course lasting a year, or 7) as a tutorial responsibility within the pastoral program. Provision varied widely across schools with respect to a number of other characteristics also. The common element found derived from the dependence on the study skills materials available. Teaching methods and grouping practices varied widely. Students tended to agree on the importance of the skills listed on their questionnaires, but many expressed anxieties about named skills. Few students in the second survey showed much improvement by the end of their courses. In interviews, some students were unable to remember anything of the study sessions they had received. The role of subject teachers in study skills instruction was an outgrowth needing to be emphasized.

JENNINGS, ROBERT; MCNINCH, GEORGE; GERMES, STEVEN; & GERMES, SHARON. Research application of schema theory in a twelfth-grade classroom. In George H. McNinch (Ed.) *Reading Research to Reading Practice.* Third Yearbook of The American Reading Forum. Athens, GA: The American Reading Forum, 1983, 132-134.

Investigates the effect of teaching a structured overview on the learning and retention of information, the recall of key concepts, and word identification. Two 12th-grade classes (n = 37), who had equivalent scores on the *SRA Reading Achievement Test* and the *Peabody Picture Vocabulary Test,* were taught a social studies unit by the same teacher for two weeks. The experimental class used a structure overview, and midway through the unit participated in a brainstorming activity which resulted in the construction of an overview of related terms and concepts. The control class received the assigned reading, lecture, and discussion. Learning and retention were tested through a criterion-specific unit test. No significant differences were observed between the groups. The experimental class recalled more key concepts on a free recall task ($p < .05$). The groups did not differ in speed or error rate when reading word lists generated from the unit.

BELANGER, JOE, & MARTIN, R. GLENN. The influence of improved reading skill on writing skill. *Alberta Journal of Educational Research,* September 1984, *30,* 194-212.

Investigates the influence of improved reading skill on writing skill for four intact experimental classes (n = 94) and four control classes (n = 100). Subjects were grade 9 and grade 10 students, who were studied for six months. Reading tests (three forms of the *Davis Reading Test*) and writing samples were collected before the reading treatment began, and at the end of three months and six months. Control and experimental groups differed significantly on the reading tests, both when grades were examined separately and when they were combined. Writing was evaluated for overall quality, syntactic density, T-unit length, productivity, and selected grammatical errors. Overall, papers written by the two groups were very similar. Of the 36 null hypotheses tested, only three were rejected, with all three differences favoring the control group. Only on grammatical errors did significant differences favor the experimental group. Sex differences were found on 5 of the 36 comparisons, with differences accounted for by the writing of three girls in the control group. When subjects were ranked on prereading and prewriting quality measures, rank on one measure could predict rank on the final measure in only one of eight instances.

V-8 Teaching reading—college and adult

Flippo, Rona F., & Terrell, William R. Personalized instruction: An exploration of its effects on developmental reading students' attitudes and self-confidence. *Reading World,* May 1984, *23,* 315-324.

Employs a cognitive style inventory with developmental college students and assesses attitudes toward skills development in prescriptive and personalized programs. Subjects were 85 students in the fall (prescriptive) and 64 in the spring (personalized). The *Stanford Diagnostic Reading Test* (SDRT), and the vocabulary and comprehension sections of the *Nelson-Denny Reading Test* (NDRT) were administered. Spring students also were given the *Cognitive Style Inventory.* Based on gains made on different but equivalent forms of the SDRT and NDRT tests, and lab sessions attendance, participants in both groups were categorized as successful, unsuccessful, or incomplete. Each of the reading subskills from the Stanford was used to compute each subject's gain score on the SDRT. Subjects in the personalized program expressed more positive attitudes toward skills development and more self-confidence about their ability to perform in college work than did those involved with the prescriptive sessions. Likewise, subjects in the personalized program expressed a positive attitude toward the use of cognitive style to help them in their course work.

Gadzella, Bernadatte M., & Williamson, James David. Students with different academic achievements on study skills and self-concepts. *Reading Improvement,* Fall 1984, *21,* 171-175.

Ascertains characteristics of and differences between high (HP) and low (LP) academic performers and investigates variables which predict their grade point averages (GPA). Subjects were 56 HP and 52 LP undergraduates enrolled in educational psychology classes who were also involved in a study skills program for the course. Students took a study skills pretest and posttest, completed 10 computer-assisted instruction (CAI) modules on study skills, and completed the *Tennessee Self-concept Scale.* HP subjects were identified as those with a GPA of 2.72 or higher; LP subjects were those with a GPA of 2.70 or lower. Analyses computed included t-tests for HP and LP groups on the study skills and self-concept scales and multiple stepwise linear regressions for the two groups using GPA as the criterion and the other two measures as predictive variables. The HP group scored significantly higher than the LP group on the total study skills test and on the total self-concept scale. For the HP group, the total study skills score accounted for 18.9% of the total variance in predicting GPA. For the LP group, one subscale score on the study skills test, Interpersonal Relations, accounted for 13.97% of the variance. No other scores contributed signficantly to prediction of GPA for either group.

Carter-Wells, JoAnn. Percepts of the place of college reading instruction among faculty in four year institutions. In Delryn R. Fleming (Ed.) *Journal of College Reading and Learning,* Vol. 17. Whittier, CA: Western College Reading and Learning Association, 1984, 19-29.

Surveys four-year college and university faculty to assess their attitudes and beliefs about college reading. A three-part questionnaire was constructed to elicit: 1) information about existing courses offered on specific campuses, 2) views of the faculty about college reading instruction in general and the reading process in particular, and 3) the faculty's philosophy of the mission and the division of responsibility in their institutions. Questionnaires were mailed to faculty members in each of 10 disciplines, at 300 private and public colleges and universities with enrollments over 7,500. A total of 3,131 individual questionnaires were returned from 119 institutions: a return rate of 53% and 71%, respectively. Many faculty were unsure if their institution offered college reading programs, though most (67%) did know; 80% of the faculty rated college students' overall reading performance as fair or poor, and the major reasons cited were poor high school preparation and student attitude; 69% thought that reading courses should be offered only to low-performing students and only as noncredit courses. A total of 55% of the faculty thought the institution should offer instruction in basic skills, and 45% thought that it was the student's responsibility to have these skills before entering college. The only faculty differing significantly from this position was the English faculty; about 70% thought it was the institution's responsibility. One other question asked faculty to indicate their view of the mission of the university: 12% indicated the mission was to produce students with a strong liberal arts emphasis; 5% a career path; and 83%, a combination of liberal arts emphasis with preparation in a career path. There was a difference in faculty, however, with 43% of business/economics faculty indicating that the mission should be the student's career path.

HUNTER, JILL S. Reading: The key to quality in higher education. *Reading World,* March 1984, *23*, 253-264.

Reviews selected research related to college reading programs. First there is a review of the types of reading programs found in four-year colleges. It is concluded that those programs having the most effects are ones which have specific academic requirements as the basis of instruction. Other research reviewed suggested that skills and strategies are not automatically used but that students need to practice their using actual texts and a variety of assignments.

SIMPSON, MICHELE L. The status of study strategy instruction: Implications for classroom teachers. *Journal of Reading,* November 1984, *28*, 136-142.

Reviews the research literature pertaining to independent learning strategies of high school and college students. The author contends that the research indicates many students have a restricted range of strategies for learning from text for three possible reasons: 1) they have not been taught, 2) they are unable to self-regulate study strategies, and 3) they do not think to apply them. Five recommendations for improving study strategies are made.

NIST, SHERRIE L.; SIMPSON, MICHELE L.; & HOGREBE, MARK C. The relationship between the use of study strategies and test performance. *Journal of Reading Behavior,* 1985, *17*(1), 15-28.

Investigates the relation between the use of appropriate study strategies and test scores on three different content area exams. The subjects were 37 college students enrolled in an upper level reading course. All students were taught and given opportunity to apply a variety of effective study strategies based on a modified version of the SQ3R, including the skills of surveying text, formulating questions, reading for major concepts, making marginal notes, underlining text, summarizing, notetaking, preparing for examinations, and increasing reading rate. Prior to receiving their own test results, subjects were asked to write a detailed description of how they prepared for each exam. Responses were coded as positive or negative, and a composite score of the positive minus the negative behaviors was also computed. The behavior scores were then correlated with test scores. The results indicated a high correlation between the use of positive strategies and test performance.

KING, JAMES R.; BIGGS, SHIRLEY; & LIPSKY, SALLY. Students' self-questioning and summarizing as reading study strategies. *Journal of Reading Behavior,* 1984, *16*(3), 205-218.

Compares the effects of student-generated prequestions and summaries as reading-study strategies for college age subjects. Eighty-seven freshmen and sophomores from several sections of a developmental reading course were trained to use one of two study approaches: (a) phrasing and answering higher level questions while reading, or (b) constructing and checking summary statements while reading. A control group (n = 10) from the same population received no training. The results of three posttests – free recall, an objective test, and an essay test – indicated that training in summary generation as an adjunct study activity significantly increased college students' free recall as well as performance on the objective test and the essay test. Training in interspersed prequestioning significantly aided students' performance on the objective test recall but not on free recall or on the essay test. It was concluded that college students benefited from engaging in encoding strategies during reading and that specific strategies may be strongly related to posttest measures.

KERSTIENS, GENE, & TYO, JOHN. Write to read: A tale of two techniques. In Delryn R. Fleming (Ed.) *Proceedings of the Sixteenth Annual Conference of the Western College Reading and Learning Association,* Vol. 16. Whittier, CA: Western College Reading and Learning Association, 1983, 26-33.

Examines the effects on vocabulary, comprehension, and reading rate of copying material dictated by the instructor. All subjects were college students enrolled in remedial freshman English on the basis of their performance on the *Cooperative English Test.* Students in the control group continued the regular curriculum of the class, which included instruction in comprehension, vocabulary, rate and study skills. The experimental subjects completed the same course outline, but for one-fourth of the instructional time they copied dictated passages. The object was for students to produce transcripts free of mechanical errors, misspellings, and grammatical or punctuation errors. Posttesting included the reading section of the Cooperative, the *Nelson Reading Test,* the *Minnesota Reading Assessment,* the independent reading level scores of the *Degrees of Reading Power* (DRP), and an oral transcription test. The number of students taking various tests ranged from 53 to 57 in the control group and from 54 to 68 in the experimental group. For the Cooperative, Nelson, and Minnesota tests, there is a total of 12 possible subtest or total scores; the experimental group scored significantly higher on 3 of them, the control group scored higher on 3, and there was no difference on 6. The experimental group scored significantly higher on the DRP and on the oral transcription test.

COHEN, ELAINE L. Assessment, advising and early warning: Strategies for improving retention. In Delryn R. Fleming (Ed.) *Journal of College Reading and Learning,* Vol. 17. Whittier, CA: Western College Reading and Learning Association, 1984, 43-56.

Summarizes the results of institutional studies implemented to evaluate the effect on grades and attrition of a special academic assessment and placement program. At a community college, all students enrolling in eight or more units or who wished to enroll in reading, writing, ESL, or certain math classes were assessed in reading, writing, and math skills. The assessment instruments included the *Stanford Diagnostic Reading Test,* a holistically scored written essay, the *College Board's Computation Placement Test,* an algebra exam, a pre-calculus exam, and a specially prepared 100-item ESL exam based on textbooks. Based on the test results, students were supposedly placed in more appropriate classes, although the report states that many of the hopes of the study proved unrealistic. The effects of the assessment/

advisement efforts were evaluated by comparing attrition rates and grades with the attrition rates and grades of the previous year. Grade performance increased (only percentages are reported) for most math courses and some English courses. Overall attrition also decreased.

MALLERY, ANNE. College reading: Impact on student retention. In George H. McNinch (Ed.) *Reading Research to Reading Practice.* Third Yearbook of The American Reading Forum. Athens, GA: The American Reading Forum, 1983, 43.

Describes the effect of a college reading program on grades in courses requiring heavy reading assignments. Subjects (n = 181) were undergraduates who had below an 11.0 grade equivalent score on the *Nelson Denny Reading Test*, and also a verbal SAT score of less than 430. The reading program included study skills lectures/activities, self-paced skill development, and a language experience activity which enabled students to apply reading, writing, listening, and speaking skills to an interview and research project. Transcripts for the students were examined for a semester subsequent to their completion of the course. In courses requiring heavy reading assignments, 72% of the subjects achieved a C grade or better.

JOSEPH, NANCY. Integrated language skills: An approach to developmental studies. *Forum for Reading*, Fall/Winter 1984, *16*, 32-35.

Evaluates the effectiveness of a 16-week integrated Language Skills Program for academically underprepared students at a Southern community college. Performance of students enrolled in the course and those not enrolled was compared after both groups had completed Basic English. Subjects were compared on the *Nelson-Denny Reading Test*, and on their final examination scores. Students receiving the Language Skills Program performed significantly better on the Nelson-Denny test and on the Basic English comprehensive final exam. The final course grades of Language Skills students averaged a full letter grade higher than non Language Skills students. Retention was also higher for students enrolled in the integrated program (90-95% versus 70% for the college as a whole). Students' subjective evaluations of the program were also favorable.

SMITH, SHARON PUGH, & JACKSON, JANET H. Assessing reading/learning skills with written retellings. *Journal of Reading*, April 1985, *28*, 622-630.

Reports the development and validation over a five-year-period of an assessment alternative to standardized testing for underprepared students entering a summer reading program at a large state university. Subjects are asked to read an 800-word passage of sociology material and to write a retelling of that passage without referring to the original. From the retelling, statements are made about the subject's processing of information. Results, along with scores from the *Stanford Diagnostic Reading Test* are used to place students in one of three levels of the course. Procedures for developing the rating sheet, for training raters to use the sheet, and for establishing reliability and validity are included, as are recommendations for resolving discrepancies between performances on the standardized test and the written retelling.

MCMURTRIE, RONNA S. Effects of training in study skills for specific content courses as reflected in actual course enrollment, grades and withdrawals of high-risk college freshmen. In George H. McNinch (Ed.) *Reading in the Disciplines.* Second Yearbook of the American Reading Forum. Athens, GA: The American Reading Forum, 1982, 64-65.

Investigates the effect of study skill training using course material on performance in the course. Subjects (number unspecified) were enrolled in a college developmental reading program which met twice a week for 10 weeks. In addition to other study skills, work students used an SQ3R technique on a chapter of the required text from one of five content area courses. Enrollment of subjects in the biology, chemistry, and psychology classes was too low for comparisons to be made. In the sociology class, subjects from the program who had worked on the content specific material performed better than those who had not in terms of pass rate ($p < .05$), while the withdrawal rate from the class was also lower for the former group. No differences were observed for a math class.

HEERMAN, CHARLES E. Reading gains of students in a college reading laboratory. *Reading Horizons*, Spring 1984, *24*, 186-192.

Presents pre- and posttest data on 32 entering college freshmen enrolled in a one semester reading course offering noncontent related reading instruction and 32 controls. Alternate forms of the *Nelson-Denny Reading Test* were used to assess gains. Reading course students made significant gains over controls in vocabulary and total reading scores.

BLAKE, MARY E. Reading instruction in a college special studies program. *New England Reading Association Journal*, Spring/Summer 1985, *20*(2), 39-44.

Describes the reading component of one summer preparatory program for minority students which was designed to help students recognize their own deficiences, employ organizational strategies to become independent learners, and to make reading a pleasurable daily habit. Students were placed into the program on the basis of the *Nelson-Denny Reading Test*, a freshmen writing sample, and a modified grammar test. Five classes were formed, with mean reading levels ranging from 7.55 to 13.6. Students were taught specific strategies, completed two writing assignments per week, participated in a sustained silent reading program both in and out of class, kept daily journals, and were encouraged to attend special sessions, if they felt a need. At the end of the program, the students had improved an average of one grade level on the *Nelson-Denny*. Two years after, 56% of the original 71 were still enrolled, including five of the seven students with the lowest reading scores on the pretest.

ROCKLIN, THOMAS; O'DONNELL, ANGELA; DANSEREAU, DONALD F.; LAMBIOTTE, JUDITH G.; HYTHECKER, VELMA; & LARSON, CELIA. Training learning strategies with computer-aided cooperative learning. *Computers and Education*, 1985, *9*(1), 67-71.

Describes the combination of two technologies (computer-based instruction and cooperative learning) into a system called computer-aided cooperative learning (CACL), and its use in training subjects in a general learning strategy. A six-step strategy was developed which involved setting a task-appropriate mood, reading for general understanding, recalling as much of the material as possible, detecting errors and omissions, elaborating upon the material to make it more memorable, and reviewing. In evaluating the CACL paraphrased imagery module, 89 students in introductory psychology classes were assigned to a CACL group, an Individual learning strategy group, or a No Treatment group. Three two-hour sessions were used. After receiving training, subjects individually studied two passages, took a free recall over them, and completed the *Delta Vocabulary Test* and the *Group Embedded Figures Test*. Students using CACL recalled more material from each of two passages studied individually than did subjects not using CACL.

TOWNSEND, BRENDA S. Assessment of a college reading course for academically deficient students. In George H. McNinch (Ed.) *Reading Research to Reading Practice*. Third Yearbook of The American Reading Forum. Athens, GA: The American Reading Forum, 1983, 41-42.

Reports the success of a reading and study skills program for college freshmen. Subjects (n unspecified), who had completed an initial reading course before enrollment in the program, had SAT verbal scores below 300 and scored below the 11.0 grade level on the *Nelson-Denny Reading Test*. A summer course of six weeks concentrated on vocabulary development and comprehension using content materials. A fall six-week course used similar materials to teach study skills and techniques. Students' reading comprehension improved significantly ($p < .001$), as did performance on mastery tests. Subjects' grades for courses requiring reading skills were examined at the end of the spring semester, and showed only slight evidence of transfer of learning.

RANDLETT, ALICE L. Peer tutor training in reading and study skills: A research review. In George H. McNinch (Ed.) *Reading Research to Reading Practice*. Third Yearbook of The American Reading Forum. Athens, GA: The American Reading Forum, 1983, 53-57.

Reviews and critiques the research concerning the use of peer tutoring in reading and study skills at the college level. An examination is made of methods of evaluation, methods of selecting tutors, training methods, and the rewards, benefits, and costs of the programs. Criticisms are made concerning research design, evaluative measures, and the lack of empirical evidence for the success of peer tutoring programs. It is concluded that tutors may benefit more from such a program than tutees.

BOWMAN, HARRY L. ART: A fundamental skills initiative of the Navy. In Delryn R. Fleming (Ed.) *Proceedings of the Fifteenth Annual Conference of the Western College Reading Association*, Vol. 15. Whittier, CA: Western College Reading Association, 1982, 30-35.

Describes the Department of Navy's Academic Remedial Training (ART) program. Topics covered include a short history of ART, a description of the program's design and procedures, an academic profile of Navy recruits and those enrolling in ART and a brief evaluation of ART. All Navy recruits take Level D of the *Gates-MacGinitie Reading Tests*. Recruits scoring below a 6.0 reading grade level (RGL) are further screened. Those assigned to ART are diagnosed with the *Stanford Diagnostic Reading Test* and, based on the results, assigned to one to six specific skill modules. It takes five weeks to complete all six modules. All diagnosis and instruction are managed by computer. For the fiscal year 1981, approximately 88,000 recruits were tested. Approximately 3,000 recruits scored below the 6.0 RGL. There was a disproportionate ratio of high school graduates scoring below RGL: 78% of all recruits had high school diplomas, but 85% of those scoring below RGL were high school graduates. Evaluation of ART was based upon percentage of attrition. The attrition levels for fiscal years 1980 and 1981 were both approximately 8%.

CALDWELL, ROBERT M., & HEDL, JR., JOHN J. Computer-based basic skills instruction in a CETA funded project: A case study. *Urban Review*, 1984, *16*(2), 76-86.

Seeks to discover if computer-based education (CBE) can be used to develop literacy and mathematics skills in young adults. A comprehensive program of individualized instruction in reading, mathematics, and language arts that provided over 600 hours of instruction in these areas was utilized. Computer-assisted instruction was provided a group of randomly assigned subjects at each of two sites in large city situations over a nine-month period. Comparison groups were also established at these sites and the enrollees pursued a course of instruction typically offered. Each of the four experimental and control groups numbered about 25, but attrition lowered these numbers markedly. At one site, over half of those starting the CBE program did not complete more than two hours of instruction. In general, the study revealed that computer-based instruction seemed to have little effect on program participants.

MARTIN, MICHAEL ALLEN. Students' applications of self-questioning study techniques: An investigation of their efficacy. *Reading Psychology*, 1985, *6*(1-2), 69-83.

Explores the effectiveness of three study techniques: the question annotation of the REAP technique, the self-questioning technique, and SQ3R. Subjects were 94 first-quarter freshmen enrolled in a reading/study skills course for provisionally admitted college freshmen. Intact classes were assigned randomly to conditions. Two classes were assigned to each condition. Groups read a total of 15 intact passages from psychology, history, and sociology texts. Treatment occurred over a six-week period, with the first week involving extensive training and the second through sixth week involving one day follow-up review and application of the technique to a new passage. During the seventh week, subjects were given a new passage, asked to apply their specific study technique, and completed a multiple-choice posttest. Two weeks later, subjects were given the same posttest to assess delayed recall without rereading or reapplying their study technique to the passage. The SQ3R group significantly outperformed the REAP group on immediate or delayed recall. Six subjects were interviewed with a 20-item structured interview assessing how they processed information when they applied their specific study technique, and what thought processes they used on one item they got correct and one they got incorrect on the posttest.

V-9 Teaching materials

SHAPIRO, SHEILA. An analysis of poetry teaching procedures in sixth-grade basal manuals. *Reading Research Quarterly*, Spring 1985, *20*, 368-381.

Determines that the poetry teaching procedures recommended by expert opinion are not the poetry teaching procedures suggested by the manuals of the eight most widely used sixth-grade basal readers. From the writings of authorities, poets, and literary critics, five criteria for poetry instruction were evolved: 1) poetry should be presented in meaningful context; 2) poetry should be orally interpreted by the teacher; 3) instruction should encourage active participation; 4) instruction should explore feelings, thoughts, and ideas; and 5) follow-up opportunities should be interesting and meaningful. Poetry practices were assessed using a three-dimensional rating system: present and enhancing the lesson, present but detracting, or absent. One-hundred-and-six poetry lessons were examined using a four-step procedure of reading and analysis. Stated objectives emphasized cognitive rather than affective outcomes, and no basal consistently reflected the five criteria distilled from expert opinion.

HARE, VICTORIA CHOU, & MILLIGAN, BEVERLY. Main idea identification: Instructional explanations in four basal reader series. *Journal of Reading Behavior*, 1984, *16*(3), 189-204.

Examines instructional explanations and directives pertaining to main idea identification in four basal reader sets. The four series presented somewhat similar profiles of explanatory comments on main idea identification, with one series providing a greater number of review opportunities. All four series drew, however, from a relatively limited domain of comments. The various series offered scant, if any, details about the what, where, why, and how to evaluate aspects of main idea identification. The largest share of explanatory comments in each series was devoted to how to identify aspects of the main idea. Within this how category, each series struggled with or seemed to avoid the issue of determining importance. More emphasis was placed on delivering straightforward information about typical problems and positions of explicit main ideas or the role of supporting ideas only. Main idea directives across the four series capitalized on standardized routines, asking pupils either to choose or to generate main idea for selection. Extremely simple texts possessing very obvious topic sentences or main ideas (near-perfect cases) tended to be the norm in practice exercises. Total number of directives were found to be roughly similar for the four series.

MORROW, LESLEY MANDEL. Predictable elements represented in selections of primary basal readers. *Reading Improvement*, Winter 1984, *21*, 267-275.

Does a content analysis of preprimers, primers, and grade one books of six sets of basal readers for the presence of predictable elements, those features in a story that enable a reader to guess, expect, and predict what the writer is about to say. A total of 536 stories were analyzed for seven predictable elements: familiar stories, cumulative patterns, meaningful illustrations, familiar concepts, familiar sequences, repetitive phrases, and rhyme. Familiar concepts appeared in 100% of the stories and meaningful illustrations appeared in 88.8% of the stories; repetitive phrases occurred in 32%, rhyme in 22.9%, familiar cumulative patterns in 5%, and familiar sequences in 3.1%. Chi-square analyses indicated there were significant differences among publishers in the use of several of the patterns. No significant differences were found among levels in the use of familiar concepts, repetitive phrases, familiar sequences, or cumulative patterns, but differences were found for the other predictable elements.

CARTER, SYLVIA M., & AARON, IRA E. Literature, instructional materials, and teacher perceptions of the development of comprehension skills: A research report. In George H. McNinch (Ed.) *Reading in the Disciplines.* Second Yearbook of the American Reading Forum. Athens, GA: The American Reading Forum, 1982, 43-45.

Investigates the attitude of teachers and education paraprofessionals to the use of children's literature to enhance comprehension skills, and reports the levels at which certain skills are introduced in a selection of basal reading series. Inservice teachers (n = 27), preservice teachers (n = 20), and paraprofessionals (n = 28), who were all assigned to classrooms in grades kindergarten through six, completed a 12-item rating scale designed to assess attitudes towards using children's books to enhance comprehension and enjoyment. Scores for each of the groups are tabulated by item. The level at which selected comprehension skills are first introduced in five widely used basal reading series was examined using scope and sequence charts. A difference was found in the grade level at which some skills are introduced by various basal series.

PIPER, TERRY. Phonics for the ESL learner. *Reading-Canada-Lecture*, October 1983, 2(3), 56-62.

Re-examines exceptions to phonic rules in an effort to increase the utility of phonics rules pertaining to vowels. A list of 3,265 words was created from all words in the six books of an English as a Second Language (ESL) series. Exceptions to each generalization were examined and classified according to common characteristics. Most exceptions fell into two broad categories. The percentage of utility for these words was recalculated, adjusted for morphology, for rule ordering, or both. The utility of the rules affected was increased by an average of 13%.

SERRA, JUDITH K., & LAMB, POSE. The elderly in basal readers. *The Reading Teacher*, December 1984, *38*, 277-281.

Examines four basal series used in grades one through six to note the treatment of the aged. The total number of stories containing or mentioning an elderly character was counted. Out of 1,036 stories in the four series, only 6.8% discussed or included elderly characters. Basal stories that included the elderly fell into one of six categories: children having a relationship with an old relative; seniors seen as being wise or inspirational; elderly individuals experiencing hurt, problems, or challenges; elderly having a close relationship with an unrelated individual; old people seen as being socially active; and elderly seen breaking male or female stereotypes. Most stories about the aged dealt with a close relationship with an elderly relative.

BORDELON, KATHLEEN W. Sexism in reading materials. *The Reading Teacher*, April 1985, *38*, 792-797.

Reviews research appearing roughly over a decade to ascertain if sexism is present in teaching materials, and if boys are poorer readers than girls, and if teaching materials are geared to boys' interests.

FLOOD, JAMES; LAPP, DIANE; & FLOOD, SHARON. Types of writings found in the early levels of basal reading programs: Preprimers through second grade readers. In Rosemary F. Bowler (Ed.) *Annals of Dyslexia*, Vol. 34. Baltimore, MD: The Orton Dyslexia Society, 1984, 241-255.

Analyzes eight basal reading programs, approved for adoption in the state of California, to determine the types of writing included in each program from preprimers through second grade readers. Also analyzes the discourse instruction guidelines of the Teacher's Manuals in each series and in three standardized reading achievement tests: the *California Test of Basic Skills*, the *Metropolitan Achievement Test*, and the *Stanford Achievement Test*. There were six discourse classifications: narrative (seven types of fiction), poetry, play, exposition, biography and hybrid. Two classification systems were used to analyze Teacher's Manuals: explanation of strategies for teaching discourse and explanation of strategies for teaching a particular type of writing. It was found that 56% of all basal selections were narrative, 25% poetry, and 15% exposition. By page counts, however, over 80% of the materials were narrative. Two discrepancies in the types of discourse of tests and basals were found: most of the content of tests was narrative and there was very few complete texts. Teacher's Manuals were found to provide instruction for teaching the various types of discourse.

BAUMANN, JAMES F.; JOHNSON, DALE D.; & MOE, ALDEN J. An extended basic sight vocabulary for the primary grades. *Reading Psychology*, 1984, *5*(1-2), 39-53.

Describes the development of an Extended Sight Vocabulary for the Primary Grades and suggests ways teachers can use this sight vocabulary lists for developing and extending students' sight vocabularies. The master word list for the study was developed from the top 10,000 words of the Carroll-Davies-Richman and Kucera-Francis lists, the 9,932 words frequently appearing in children's picture books, and a 5,864-word list compiled from children's oral vocabularies. Six different test books, each containing 300 of the 1,800 targeted words, were constructed and administered to 6,898 children from five different geographic regions. Children were to circle the target word as it was dictated by the teacher. Using a 90% minimum recognition criterion (90% of the pupils at each grade level recognized each word), a 1.683-word list was established consisting of 587 first grade words, 861 second grade words, and 235 third grade words.

EEDS, MARYANN. Bookwords: Using a beginning word list of high frequency words from children's literature K-3. *The Reading Teacher*, January 1985, *38*, 418-423.

Reports the development of a 227 primary-level word list called Bookwords. Words were selected from 400 children's literature texts. Passages were compared on computer. From the running total of 120,000 words, the 227 most frequently used words were identified. The list produced accounted for an average of 73% of all running words, and an average of 65% of all different words in the sample. The least common words on the list appeared 20 times. Contrasts are drawn between the Bookwords and other high frequency word lists. Suggestions for using Bookwords are included.

Cloer, Jr., Thomas. An analysis of the American Heritage Word List–Implications for teaching beginning reading. In George H. McNinch (Ed.) *Reading Research to Reading Practice.* Third Yearbook of The American Reading Forum. Athens, GA: The American Reading Forum, 1983, 47-48.

Compares the Dolch 220 word list with the 300 most frequently occurring words from the American Heritage List (AHL), and examines the 3,000 most frequently occurring words from the latter list to determine common syllabication rules. Of the words on the Dolch list, 54 were not among the 300 most common words from the AHL. Of the words on the latter list, 134 were not on the Dolch list. A comparison is also made of the most common nouns. Five hundred multisyllabic words from the 3,000 most frequently occurring words on the AHL were examined for syllabication patterns. Three basic patterns emerged: vowel, consonant, consonant, vowel; vowel, consonant, vowel; and suffixes. Implications are drawn for instruction.

Nagy, William E., & Anderson, Richard C. How many words are there in printed school English? *Reading Research Quarterly,* Spring 1984, *19,* 304-330.

Describes an effort to determine the number of distinct words in printed school English. Performed was a detailed analysis of a random sample of 7,260 words drawn from Carroll, Davies and Richman's *Word Frequency Book* (WFB). The sample consisted of 121 chunks of 60 alphabetically contiguous words in the WFB. Contiguous words were used in order to identify related words which usually appear close together in an alphabetical listing. Words were categorized for six levels of semantic relatedness and also into six word-relatedness categories. Projecting from this sample to the total vocabulary of school English, an estimate of approximately 88,500 distinct words was arrived at. For every word a child learns, it was estimated that there was an average of one to three additional related words that should also be understandable to the child, the exact number depending on how well the individual is able to utilize context and morphology to induce meanings. Based on the analysis, a reconciliation of estimates of children's vocabulary size from previous research was undertaken, which showed that the extreme divergence in estimates has to lie mainly in the definition of "word" adopted. The authors contend that their findings indicated that even the most ruthlessly direct vocabulary instruction could neither account for a significant proportion of all the words children actually learn, nor cover more than a modest proportion of the words they will encounter in school reading materials.

Sartain, Harry W. Frequency-count of English words appearing in books read in elementary school. In Karl Tuunainen & Alain Chiaroni (Eds.) *Full Participation. Proceedings of the Second European Conference on Reading, Joensuu, 2-5 August 1981, Finland.* Joensuu, Finland: University of Joensuu, 1982, 292-317.

Describes the development of a vocabulary list for elementary children. The list was based on words identified from nine series of primary level basals; first and second grade textbooks in two language series, two mathematics series, one social studies series, and three science series; 29 library books frequently read by first and second graders; and instructional and free heading materials most frequently encountered by children in grades 3-6. The total list consisted of over 8 million words, of which about 17,000 were different words. A listing of the most frequently occurring 500 words is presented.

Newcomer, Phyllis L. A comparison of two published reading inventories. *Remedial and Special Education*, January/February 1985, *6*(1), 31-36.

Examines the extent to which two published informal reading inventories (PRIs) identify the same instructional level when administered to 50 children in grades one through seven identified as having reading problems. PRIs contain grade level passages developed from word lists as opposed to passages from basal series. Chosen for scrutiny were Forms A and B of both the *Classroom Reading Inventory* (CRI) and the *Ekwall Reading Inventory* (ERI). The inventories were administered and scored. The Fry Readability Formula was then applied to the paragraphs in the A form of both PRIs. The degree of congruence in identifying instructional levels was tested using chi-square. In more than 50% of the cases, the tests identified different instructional levels; in about 25% of the cases, the difference was two or more grade levels. There was less congruence for children in grades four through seven than for those in the primary grades. Neither test was consistently easier or more difficult. The readability formula agreed with three of the ERIs stated grade levels and with only one of the CRIs stated grade levels.

Newton, D.P. A way of classifying and measuring some aspects of the illustration style of textbooks. *Programmed Learning and Educational Technology*, February 1984, *21*, 21-27.

Presents a system for classifying and measuring the representation of the physical world and the use of metaphor in textbook illustrations. The system is applied to 30 history textbooks and 31 science textbooks available for British Junior, Lower Secondary (11 to 13 years) and Upper Secondary (14 to 16 years) schools. Illustrations in each book were classified into a grid system developed by the author. As the dimensional discrepancy increased, metaphorical representation had a tendency to become more complex. For Junior level texts, illustration style was largely fully representational and with metaphor. By the Lower Secondary level, text illustrations showed a more economical style with increased metaphor, particularly in science texts. At the Upper Secondary level, a fully representational, nonmetaphorical style dominated in history, but in science the movement was in the direction of abstraction and increased use of metaphor. Thus, illustrations in texts were different in style in the two content areas, and the differences increased with intended age level of the texts. History illustrations were inclined to be events involving people. Science text illustrations tended to carry more specialized information and to express generalizations not always duplicated in the text.

Radencich, Marguerite C., & Schumm, Jeanne Shay. A survey of college reading/study skills texts. *Reading World*, December 1984, *24*(2), 34-47.

Surveys 17 reading/study skills texts designed for college developmental reading courses. Both textual and content factors were examined. Included as text factors were analyses of teaching guides, readability levels, interest levels, types of selections, rate charts, glossaries and indices, advance organizers, chapter summaries, review questions, and visual displays. Content factors scrutinized included, among others, the following: learning strategies, previewing, graphics, vocabulary, reading rate improvement, note-taking, outlining/mapping, main idea and types of paragraph organization, critical reading, library skills, reading nontextual material, writing, spelling, college orientation/study schedules, self-appraisal/attitudes, speaking in/out of class, and differential instruction by subject area. It was found that elements common to most reading/study skills texts on the market included advance organizers, use of subheadings and lists, provision of learning strategies, instruction on previewing and on main idea, and different types of paragraph organization. Many books also included review questions and chapter summaries, along with instruction on graphics, reading rate improvement, outlining, text-marketing, memory improvement, and test-taking skills. Only a few provided instruction on self-appraisal, spelling, nontextual reading, writing, critical reading, or content-specific instruction. Books selected were divided into four categories: 1) college survival, 2) college reading instruction, 3) college survival and reading instruction, and 4) college reading practice texts. College survival and reading instruction texts tended to be more complete than texts in the other categories.

ARMBRUSTER, BONNIE B., & ANDERSON, THOMAS H. Structures of explanations in history textbooks or so what if Governor Stanford missed the spike and hit the rail? *Journal of Curriculum Studies*, April-June 1984, *16*, 181-194.

Reviews the rationale for the purpose of text structure in aiding comprehension and learning and proposes generic text structures (frames) and content categories (slots) specifically applicable to a psychological explanation of history text (goal, problem/solution). Suggested uses for frames including evaluating psychologically-based historical explanations in textbooks, writing textbooks, and learning from textbooks are demonstrated. The method is applied to excerpts from three elementary social studies texts. All three fail to present material effectively.

COLWELL, CLYDE G., & HELFELDT, JOHN. The paragraph as a semantic unit: Theory into practice. *Reading World*, May 1983, *22*, 332-345.

Conducts an analysis of 200 paragraphs from each of three natural science and three social studies junior high and high school textbooks. In particular, the extent to which the following types of paragraphs occurred was investigated: cause-effect, comparison-contrast, time order, and simple listing, no clear pattern, and combination of patterns. Two independent raters classified all paragraphs. For social studies books, simple listing and cause/effect were most prevalent; for science texts, cause/effect and comparison/contrast were most frequent. Instructional suggestions for the three most prevalent patterns (cause/effect, simple listing, comparison/contrast) are presented.

GAGNÉ, ELLEN D., & BELL, MICHAEL S. The use of cognitive psychology in the development and evaluation of textbooks. *Educational Psychologist*, Summer 1981, *16*, 83-100.

Analyzes current theories and models of discourse comprehension for the purpose of developing procedures to evaluate the instructional quality of high school and college texts. Instructional quality is defined as the textbooks' potential for facilitating representations in memory. The authors' review of the research resulted in 15 dimensions for evaluating texts: word familiarity, sentence complexity, clause complexity, lexical ambiguity, topical and referential ambiguity, consistency in labeling, referential distance, restatement searches, prequestions, signaling, direct questions and objectives, advance organizers and analogies, application questions, rich text structure, and integrative questions. These dimensions are quantified by applying them to three educational psychology texts and deriving raw and standard scores for each dimension. Concludes that the use of these dimensions in evaluating textbooks to be used for instruction is more valid and reliable than the intuitive procedures generally used by teachers and professors.

O'HEAR, MICHAEL F., & RAMSEY, RICHARD N. Readability and human interest in basic writing textbooks. In Delryn R. Fleming (Ed.) *Journal of College Reading and Learning*, Vol. 17. Whittier, CA: Western College Reading and Learning Association, 1984, 78-87.

Assesses the readability levels and human interest levels of 15 English handbooks intended for use in developmental English courses published in 1981 to 1983. The Flesch reading ease (RE) and Flesch human interest (HI) formulas were calculated for 5 related samples each of text, examples, and exercises. The results reported were overall RE and HI of each book; the specific RE and HI range of each of the 15 samples; and the average RE and HI of the text, examples, and exercise samples for each book. The range of RE and HI for the 15 books was 55 to 77 and 77 to 54, respectively. Average RE was 67, which is rated as standard difficulty. Average HI was 31, which is rated as interesting. There was considerable variability in the RE for the 15 samples of each book; one book had samples classified in all 7 ranges, eight books had samples classified in 5 or 6 ranges, and four books had samples classified in only 3 or 4 ranges. There was also considerable variability in the HI of the samples. The variation among text, examples, and exercises in both RE and HI was also found to be considerable.

Reid, D.J. A three-in-one readability program for science worksheets. *The School Science Review,* March 1984, *65,* 560-569.

Employs three reading formulae (the Fry, the Flesch, and the SMOG) in a program on 154 randomly selected worksheets collected from science departments of 20 secondary schools in England. Correlated two-tailed *t* tests indicated that the SMOG formula recorded a significantly higher readability level than the other two; there was no significant difference between the other two. The mean readability level of the worksheets as measured by the SMOG was between one-and-a-half and two years higher than that measured by Fry and Flesch. The program required an input of three passages selected from the piece of writing to be tested and it calculated three independent values of reading level for a single input. The final screen display produced the three reading levels together with the total number of units counted in terms of syllables, words with three or more syllables, total words, and total sentences. These figures indicated whether the difficulty of the text was attributable to sentence length or to number of polysyllabic words employed.

Griesinger, Walter S., & Klene, Richard R. Readability of introductory psychology textbooks: Flesch versus student ratings. *Teaching of Psychology,* April 1984, *11,* 90-91.

Investigates subjective and Flesch-score readability correspondence of five psychology textbooks in an experiment involving 184 two-year college students enrolled in an undergraduate psychology course. Four topic areas common to most introductory courses in the field were read by participants. Students were given a packet of reading representing the four topic areas in two texts and were asked to decide which one contained material easier to read and understand. Student ratings were changed to normally distributed scores for each topic area. Scores from each topic area were combined by computing the mean, thus producing a readability score for each text. These were then compared with the reading ease rank derived by the Flesch formula. Reading ease as subjectively measured did not match the formula-derived ranking. Two books had the same ranks on the two methods, whereas on the other two ranks were reversed.

Day, Kaaren C., & Day, H.D. The availability of language arts software for the microcomputer. *Reading Improvement,* Fall 1984, *21,* 162-164.

Surveys 107 microcomputer software developers to determine the nature of language arts software they distributed. There were 464 programs available from the 40 who responded that they sold such software. Most programs were in vocabulary (31%), spelling (19%), and grammar (11%). Little software was available for comprehension (7%), structural analysis (5%), phonics (4%), punctuation (4%), creative writing (2%), and dictionary skills (1%). Number of programs and age appropriateness of programs varied for the various companies.

Lipson, Marjorie Youmans; Cox, Carla H.; Iwankowski, Suzette; & Simon, Marianne. Exploration of the interactive nature of reading: Using commercial IRIs to gain insights. *Reading Psychology,* 1984, *5*(3-4), 209-218.

Administers three commercial informal reading inventories to 24 subjects ranging in age from 8 to 15 in order to compare reader performance and levels across the various inventories. Data on reader contribution, text features, and task demands are reported for three of the 24 children. Oral and silent reading performances vary with the passages for the three subjects, with discrepancies of from one to three years in identified instructional level. Performance on the inventories was influenced by subjects' prior knowledge of the topic of the passages and by text features such as length of passage, language, and subject matter.

Klesius, Janell P., & Homan, Susan P. A validity and reliability update on the informal reading inventory with suggestions for improvement. *Journal of Learning Disabilities,* February 1985, *18,* 71-76.

Reviews research on the content and concurrent validity of the informal reading inventory (IRI), particularly research associated with: 1) students' prior exposure to the test passages; 2) passage readability levels; 3) passage dependency of comprehension questions; and 4) scoring criteria. It is suggested that few IRIs have been researched to determine concurrent validity. Also reviewed are studies on interscorer reliability and the effect of passage length on subjects' performance. Included are suggestions for increasing the validity and reliability of the instruments teachers are now using and for evaluating IRIs they might be considering in the future.

Wright, Loyd. Modifying the Bond and Tinker formula for use with low IQ adolescents. *Journal of Reading,* December 1984, *28,* 224-227.

Assesses the appropriateness of the original Bond and Tinker reading expectancy formula and two alternate formulas for determining the expected reading achievement (ERA) of 100 children enrolled in special education classes for the mentally retarded in central Texas. Mean age of subjects was 14.5, mean IQ was 54.5, and mean reading achievement score was 2.2. Average ERA predicted by the original formula was 4.9, overestimating reading achievement (RA) by almost three grade levels. Using the formula MA - 5.7 = ERA (when 5.7 was determined as the average MA at which these subjects began to profit from readiness instruction), the mean difference between the prediction and the actual reading achievement score was .04. Using a correction factor for the assumption that the children might be progressing at a rate inconsistent with their IQs, .7 (MA - 5) = ERA, the mean difference between the ERA and the RA scores was .03.

V-10 Teaching–grouping/school organization

Eder, Donna. Ability grouping and students' academic self-concepts: A case study. *The Elementary School Journal,* November 1983, *84,* 149-161.

Endeavors to identify processes deemed likely to influence pupils' academic self-concepts through an in-depth investigation of ability grouping in a first grade middle-class population of 13 boys and 10 girls. Utilized were classroom observations, the study of videotaped lessons, and pupil interviews, over an entire academic year. Pupils were assigned to groups for reading instruction during the first week of school, largely on the basis of kindergarten teachers' ratings or their reading aptitudes. Initially, there were six children each in the high, medium-high, and medium-low groups, and four in the low group. All groups met daily for reading instruction, the only form of ability grouping employed. The room was observed for three-hour periods, three days weekly through the academic year. In addition to the ongoing observations, reading group lessons were videotaped on eight occasions, four in the fall and four in the spring. From these, incidents of teacher praise were excerpted, coded, and compared with instances of coded notations or praise-statements recorded in the observation periods. It was noted that there was more frequent teacher praise for lower groups and for slower pupils in middle groups. Children were asked about group differences on three occasions, in the fourth week of the fall term, mid-year, and in the spring. By mid-year, seven members mentioned differences in rank between groups and, by spring, 12 individuals revealed that groups differed in terms of rank. While most pupils who were aware of group differences mentioned only variability in rank, five drew attention to some ability-related differences during the spring interview. Although some pupils at all levels called attention to rank and ability differences, members of the two higher categories tended to give more reports and more accurate ones than did the group members in the two lower categories. Self-esteem scores revealed that poorer readers in the high group had relatively lower self-concepts than did other pupils. These children also received less praise than the poorer readers of other groups.

ALLINGTON, RICHARD L. Content coverage and contextual reading in reading groups. *Journal of Reading Behavior*, 1984, *16*(2), 85-96.

Analyzes teacher logs from 600 reading groups sessions in grades one, three, and five to identify whether the amount and mode of assigned contextual reading differs systematically between good and poor reading groups. Sixty teachers in seven states reported data on two groups of students for five days immediately following their instruction. Teachers indicated the reading materials used, total words read, total pages read, words read orally, words read silently, and number of days during the five-day period that reading in context occurred during group instruction. A 2 (region) x 3 (grade levels) repeated measures analysis of variance was conducted, with the classroom as the unit of analysis. While there were no statistically significant differences by region, there were significant differences ($p < .001$) for all grade levels on all variables except one—number of days reading. There were no statistically significant interactions between region and grade. Results indicated that older pupils completed more reading during instructional sessions. In addition, better readers read more total words and more words silently during the instructional sessions at all grade levels than did poorer readers, and those differences were proportionally greater within the lower grades.

V-11 Corrective and remedial instruction

JOHNS, JERRY L., & VACCA, RICHARD T. An inquiry into summer loss in reading: Grades 1-7. *Reading Horizons*, Spring 1984, *24*, 208-215.

Questions the effects of summer vacation on pupils' vocabulary and/or comprehension scores as measured by a standardized reading survey test. Involved were a total of 640 pupils in grades one through seven in one school district with approximately the same number of boys and girls. Appropriate levels of the *Gates-MacGinitie Reading Tests* were given in May and September. Vocabulary scores increased in each of the grades. In the comprehension realm, pupils made statistically significant gains in grade 2 (2.4 months), grade 4 (3.8 months) and grade 5 (4.6 months). The gains at grades four and five seemed to have practical as well as statistical significance. Statistically significant losses in comprehension occurred in grade 3 (5 months), grade 6 (8.3 months), and grade 7 (8.2 months). The belief that losses in vocabulary and comprehension were due only to poor readers was not supported. An analysis of the data at each grade level suggested that pupils reading at or above grade level are more likely to experience regressions in reading over the summer months than poor readers.

Atkinson, Eric. Thirty years on: A study of former pupils of a special school. *Special Education*, December 1984, *11*(4), 17-24.

Traces 45 older, less able adults who had been subjects of a follow-up study in 1957. The ages of these men now range from 45 to 51 years. Initial intelligence testing, assessed on the *Stanford-Binet Scale* at time of special school admission, ranged from 49 to 82, with a mean IQ of 64.5. Each subject was individually interviewed. In contrast to the 1957 findings, when many ex-pupils had shown a strong desire to improve in reading, reading ability appeared no longer to play an important role. About half of the group were found to be fully competent readers with a mechanical reading age better than 13 years (51%). Eight (20%), with reading ages between 10 and 13 years, experienced no major reading problems. Semiliterates (17%) with reading ages ranging between 7 and 10 years, were able to cope with certain newspapers, road signs, street names, and television captions. Only five (12%) were total nonreaders. Those thought to have reading skills below 13 years, were tested on Form A of the *Neale Analysis of Reading Ability.* Twenty-nine men had improved their skills when compared to their 1957 standings. Mean gain was 2.3 years. Three ex-pupils were found to have lost ground, the average loss being .3 years. In general, those who had left school as reasonable readers had improved their skills. Some, who had left school with only meager ability, had been assisted and they, too, demonstrated improvement.

Sprigle, Joan E., & Schaefer, Lyn. Longitudinal evaluation of the effects of two compensatory preschool programs on fourth- through sixth-grade students. *Developmental Psychology,* July 1985, *21*, 702-708.

Compares the effects of two compensatory preschool programs, Learning to Learn (LTL) and Head Start/Title I, on the fourth- through sixth-grade performance of 90 children who initially met all requirements for entry into the two programs. Data were taken from public school cumulative records to determine achievement in reading and math, special education placement, and retention in grade. Data were available for 83 of the original subjects, with no differential attrition effects for the two groups. Subjects in the two groups did not differ significantly on background measures. In fourth grade, LTL subjects had higher reading grades than Head Start subjects, with differences especially notable for boys. Similar results were found at fifth grade, but not at sixth grade. The percentage of subjects in the Head Start group who were retained during fourth through sixth grade exceeded the LTL percentages. Special education placement was also higher for Head Start subjects.

Carnine, Douglas, & Kinder, Diane. Teaching low-performing students to apply generative and schema strategies to narrative and expository material. *Remedial and Special Education*, January/February 1985, *6*(1), 20-30.

Assesses the relative effectiveness of teaching low-performing children to answer and ask schema-based questions and to generate images and summary statements with both narrative and expository prose. Twenty-seven low-comprehending fourth through sixth graders served as subjects. Subjects were randomly assigned to the generative-learning intervention or schema-based treatment. Material for the training sessions (as well as for screening and testing) were taken from third- or fourth-grade programs currently in use with remedial and special education classes. They included 500-600 word easy-to-decode stories, as well as expository passages of the same length and difficulty focusing on social studies or the natural sciences. In the generative-learning intervention, children were asked to form an image, describe the image, and eventually summarize the entire passage. For the schema-based intervention, questions highlighted a story's structure by focusing on essential elements. The grammar was adapted for expository text. Questions were initially asked by the teachers and later pupils were reminded to generate questions as they read silently. There were 10 training sessions for narrative text and 9 for expository. Transfer measures (comprehension questions and retellings based on new selections) were administered immediately after training and again about two weeks later. Results showed that following training, scores were significantly higher, both statistically and educationally. The only significant difference between treatments favored the schema treatment on the expository maintenance test.

SHORT, ELIZABETH JANE, & RYAN, ELLEN BOUCHARD. Metacognitive differences between skilled and less skilled readers: Remediating deficits through story grammar and attribution training. *Journal of Educational Psychology,* April 1984, *76,* 225-235.

Evaluates the effectiveness of a story grammar strategy and attribution training on the reading comprehension of skilled and less skilled readers. Forty-two male fourth-grade poor readers were assigned to three groups. One group received both story grammar training (designed to increase comprehension monitoring) and attribution training (designed to increase awareness of effort in efficient reading). The other two groups received either story grammar training or attribution training. Fourteen skilled readers served as a contrast group in posttest assessments. Maintenance was assessed through free and probed recall; generalization was assessed through a metareading test and an error detection and correction task. The results showed that strategy training produced significant gains in comprehension. Only children receiving attribution training alone showed poorer performance than skilled readers. Partial support was obtained for generalization on the metareading assessment.

MCCORMICK, SANDRA, & HILL, DAVID S. An analysis of the effects of two procedures for increasing disabled readers' inferencing skills. *Journal of Educational Research,* March-April 1984, *77,* 219-226.

Observes effects of two procedures for increasing intermediate grade level disabled readers' ability to draw inferences in reading. Subjects, who were investigated in five-week segments over a 20-week semester, included 80 black and white fifth-grade pupils who had been assigned to a remedial reading program due to scores below the 33rd percentile on the *Metropolitan Achievement Tests* (MAT). Six teachers and individual pupils were randomly assigned to one of three groups employing varying methodologies: 1) the *strategy* thrust which provided opportunities to utilize previous experience in predicting story outcomes; 2) the *question* approach which afforded practice in responding to inference-type questions; and 3) a *control* group which followed traditional reading instructional practices. Experimenter designed pre- and posttests were constructed. All groups used the same materials consisting of short stories, articles, and poems in a second- and third-grade book; vocabulary games; taped readings of the book materials; questions for oral discussion. The reading achievement test of the MAT was administered by the subjects' reading teachers prior to and upon completion of the study. Strategy group inference question scores on end-of-story tests were significantly higher than the control pupils' by the second five-week period, indicating that the strategy method was effective with disabled readers and that the positive influences of the procedure may be seen after the same length of time as with average readers. By the third and fourth five-week segments, both the strategy and question groups' inference scores were significantly higher than the controls.

SIEDOW, MARY DUNN, & FOX, BARBARA J. Effects of training on good and poor readers' use of top-level structure. *Reading World,* May 1984, *23,* 340-346.

Investigates the effects of classroom instruction on good and poor readers' use of description and comparison top-level structures in written recall of signalled and nonsignalled passages. Subjects were 52 10th graders in three English classes, 20 of whom were classified as good and 32 as poor readers based on scores on the *California Achievement Test*. Students were randomly assigned to a treatment or control condition, with 10 good readers and 16 poor ones assigned equally by sex to the experimental or control conditions. Experimental training was conducted on four consecutive days and involved the use of two top-level structures, description and comparison. Experimentals read short expository passages written at the independent level and used top-level structure in a written recall test. Control pupils completed their regular English assignments. All subjects were tested on the fifth day using a written recall task consisting of four expository passages, two description and two comparison. Analysis of variance showed significant differences between good and poor performers on all measures; between treatment and control pupils for use of structure and signalling, and between descriptive and comparison passages for poor performers in both conditions.

SINATRA, RICHARD C.; STAHL-GEMAKE, JOSEPHINE; & BERG, DAVID N. Improving reading comprehension of disabled readers through semantic mapping. *The Reading Teacher*, October 1984, *38*, 22-29.

Centers on the question of whether disabled readers, given a semantic map highlighting the structure and major events of a selection before reading, would understand and recall relationships better than when using the Directed Reading Activity (DRA) approach. Twenty-seven youngsters referred to a university reading clinic were studied. They ranged in grade level from the second to eighth grade, with six pupils enrolled in ungraded special education classes. Mean score on the *Slosson Intelligence Test* was 91; average word recognition score on the *Wide Range Achievement Test* was a grade equivalent of 4.0; and mean comprehension score on the *Nelson Reading Test* was 2.5. Individual teaching sessions were conducted over a four-month period with each youngster. Pupils were assigned 10 selections to read at the appropriate level; with five, a DRA approach was used and with the other five, a map format was followed. The map format for each selection contained its key vocabulary and major concepts. Use was made of various types of maps: 1) a classification map; 2) a thematic or descriptive map; and 3) an episodic web. Results showed that 19 of the 27 subjects had higher total comprehension scores when mapping was used. In two cases, the subjects' comprehension scores were the same for both approaches; for six pupils, comprehension was stronger under the DRA. For all 27, the mean number of comprehension questions correct using the semantic map was 37.9, while for the DRA the mean number was 35.9, a difference significant at the .05 level ($t = 2.41$, $df = 25$). No significant differences were found, however, when comparisons were made among main idea, inferential, and detail questions.

CARLISLE, JOANNE F. Components of training in reading comprehension for middle school students. In Elinor Linn Hartwig (Ed.) *Annals of Dyslexia*, Vol. 33. Baltimore, MD: The Orton Dyslexia Society, 1983, 187-202.

Reviews selected research on skills that affect reading comprehension and provides examples of exercises designed to help disabled readers become more proficient in these skills. Topics discussed include disabled readers' limited word recognition ability, difficulties with complex syntax, limited knowledge of word meanings, need for assistance in reasoning and learning-to-learn strategies, and need for help in developing the ability to attend to the reading task. Also presents results of a three-year pilot study with seventh and eighth graders in which these skills were taught. No statistical analyses of the data were conducted due to the small sizes over the three years (4-12) and the non-random selection of the samples. It is suggested that the accelerated growth of these pupils warrants that the skills taught should be evaluated with sound experimental procedures.

Garner, Ruth, & Hare, Victoria Chou. Efficacy of text lookback training for poor comprehenders at two age levels. *Journal of Educational Research*, July-August 1984, *77*, 376-381.

Studies 24 low-income, predominantly minority, high school juniors randomly drawn from a population of enrollees in a summer study skills course, and 24 low-to-moderate income middle-school pupils selected from a summer remedial program in a report on the effectiveness of text lookback training. Subjects in both settings were randomly assigned to training or control groups. The training group received instruction over three days on the use of text lookbacks to answer questions. After one week, trained and control subjects were tested for use of lookbacks and question-answering accuracy. Frequencies of both lookback and nonlookback behaviors resulting in both accurate and inaccurate responses were collected for all pretraining (experimental group only) and posttraining text-based questions. The within-grade tests for training group/control group differences and related frequency information, indicated that the training was effective with middle school subjects but was not effective with high school participants. An offshot study featured additional data collection from 14 sixth- and seventh-grade subjects, randomly assigned to training or control groups. Using the same materials as in the larger effort, trained middle school subjects provided accurate responses (with and without lookbacks) more frequently than did pretraining and than control subjects. Likewise, only those trained subjects met the 70% accuracy level, and then only after intervention.

Hahn, Amos L. Helping the poor comprehender comprehend. *Reading Psychology*, 1985, *6*(1-2), 97-106.

Reviews five studies where training procedures conducted by classroom teachers using classroom texts significantly enhanced poor readers' comprehension of text. Training procedures reviewed included: identifying and answering text-based and reader-based questions; making students aware of the importance of drawing inferences between new and old information; using a why prequestion to facilitate recall of cause-effect text structure; using a structure overview in conjunction with cloze to activate prior knowledge; and self monitoring of their own text comprehension. Implications of these strategies for classroom instruction are included.

Butt, Norman. Memory training and reading. *Special Education*, March 1984, *11*(1), 31-33.

Studies the effect of training the auditory sequential memory (ASM) of 13-year-old children with moderate learning difficulties on improvement in reading age scores. Six children in each of five classes, matched for age, sex, IQ, reading age, and ASM ability, were either given daily practice in repeating series of numbers or assigned to a placebo or control group. Reading age was determined by the *Burt Graded Word Reading Test*. Mean IQ was in the mid 60s. Three follow-up evaluations were conducted: at the end of eight weeks, twenty weeks, and two years. The experimental group showed the greatest improvement in reading age at each follow-up point. Other findings indicated that: 1) boys improved their reading age more than girls, while girls improved ASM more than boys; 2) the lower the initial IQ, the greater the ASM improvements; and 3) the lower the initial reading age, the greater the reading age improvement.

Clunies-Ross, Graham. Instructional integration with intellectual handicaps. In Jonathan Anderson & Kate Lovett (Eds.) *Teaching Reading and Writing to Every Chil*[illegible] Adelaide, Australia: Australian Reading Association, 1983, 198-213.

Examines the efficacy of different approaches for teaching literacy to children with learning difficulties. The author presents findings from several studies involving the use of the Direct Instruction Model and from the Follow Through Project, a national comparative study of a wide range of approaches to the early primary education of socioeconomically disadvantaged children during the 1970s in the United States. Nine of the most significant approaches for teaching literacy used during Follow Through Project are summarized. The nine approaches included: The Open Education Program, the Tucson Early Education Model, the Cognitively Oriented Curriculum, the Responsive Education Program, the Bank Street Developmental-Interaction Approach, the Behavior Analysis Model, the Direct Instruction Model, the Florida Parent Education Model, and the Language Development (Bilingual Education) Approach. When the children involved in Follow Through were assessed at the completion of the third grade, it was found that Direct Instruction was the only one of the nine major educational models to have produced predominantly positive outcomes in all three measurement domains: basic skills, cognitive-conceptual skills, and affective development. Descriptions of other studies in support of the Direct Instructional Model are also provided.

MEYER, LINDA A. Long-term academic effects of the Direct Instruction Project Follow Through. *The Elementary School Journal*, March 1984, *84*, 380-394.

Compares the long-term performance of the first three cohorts of Project Follow Through from P.S. 137, the Bainbridge School in Brooklyn's Ocean Hill-Brownville section, with a control group of non-Follow Through children from a neighboring area. Children who had received three levels of Engleman and Stearn's Direct Instruction curriculum in reading, language, and math in kindergarten through third grade were matched with a demographically equivalent neighboring school which did not implement the Direct Instruction program. In addition to making program changes, the Direct Instruction school increased the amount of time spent teaching reading and math, and closely monitored criterion-referenced and norm-referenced pupil progress. Pupils in the control school were in traditional classes which emphasized reading and math instruction starting in first grade. Scores on the Reading and Math subtest of the *Metropolitan Achievement Test* (MAT) were compared for all subjects at the end of ninth grade, six years after the termination of treatment. In addition, the end-of-third-grade reading and math achievement scores of the Direct Instruction group on the *Wide Range Achievement Test* and the MAT were correlated with that group's achievement on the MAT at the end of ninth grade. The Direct Instruction group outperformed the control group in both reading and math at the end of ninth grade. High coefficients of correlation were found between achievement in reading at the end of third grade and at the end of ninth grade. Third- and ninth-grade math scores were also highly correlated for the Direct Instruction groups. Significantly more Direct Instruction subjects graduated from high school and applied to college than control subjects. Fewer Direct Instruction students were retained in school, although retention seemed to benefit most of the students in the study. These results are interpreted as supporting the effectiveness of the Direct Instruction Follow Through program.

WESSON, CAREN; SKIBA, RUSSELL; SEVCIK, BONITA; KING, ROBERT P.; & DENO, STANLEY. The effects of technically adequate instructional data on achievement. *Remedial and Special Education*, September/October 1984, *5*(5), 17-22.

Examines the effect of teachers' use of technically adequate, curriculum-based repeated measurement and evaluation procedures on pupils' reading achievement. Thirty-one teachers and 117 elementary children, ranging in ages from 6 to 13 years, were selected for study. Almost all of the pupils (n = 11) were being provided special education in resource rooms. A measure of the degree of implementation of measurement and evaluation procedures, the *Accuracy of Implementation Rating Scale*, served as the independent measure. Measures of the number of words read correctly in three basal reader passages served as the dependent data. All teachers were trained to carry out a specific set of procedures, including establishing an appropriate measurement level, writing long-range goals and short-term objectives, as well as collecting and plotting oral reading scores on a graph to make decisions about program effectiveness. Researchers compiled a rank order distribution of pupils based on the standardized average implementation scores. The upper 27% and lower 27% of the distribution constituted the groups used for analysis. A significant difference was found between high and low implementation groups on one reading passage; differences between scores on two other passages were not significant but were in the same direction, supporting the hypothesis that a high degree of implementation of a technically adequate data system does lead to greater achievement.

Lewis, H. Wade. A structured group counseling program for reading disabled elementary students. *School Counselor,* May 1984, *31*, 454-459.

Compares effects of a structured group counseling program and those of a nondirective type on both emotional adjustment and reading achievement of children. Subjects were 24 third- through sixth-grade children randomly assigned to one of six groups: three structured counseling and three nondirective sections, each receiving a total of eight 40-minute sessions over a four-week period. All subjects received remedial reading instruction for the duration of the investigation, for 30 minutes a day in subsections of three to five individuals. In the structured counseling emphasis, sessions were devoted to a warm-up exercise; a videotape vignette of peer and adult models engaging in self-disclosures and effective behavior modes for coping, discussion of vignettes, and success-anticipation training. In nondirective sessions, the identified procedures were pursued with the exception that the group leader assumed a nondirective role. Pre- and posttest data were collected using the *Piers-Harris Children's Self-Concept Scale*, the *State-Trait Anxiety Inventory for Children*, and Spache's *Diagnostic Reading Scales*. A multivariate analysis of covariance was employed with the results. Data analysis revealed that the structured group program produced significantly greater gains in reading comprehension than did the nondirective. Positive but not significant gains were found for the structured program in self-concept trait-anxiety, state-anxiety, and reading rate.

Calhoun, Mary Lynne, & Allegretti, Christine L. Processing of short vowels, long vowels, and vowel digraphs by disabled and non-disabled readers. *Perceptual and Motor Skills*, December 1984, *59*, 951-956.

Tests the hypothesis that the fundamental problem experienced by the disabled reader may be the failure to master the complex irregular systems of rules governing sound-symbol correspondence in English. Fourteen male subjects, 7 disabled and 7 nondisabled, of average intelligence were presented pseudoword pairs on slides and asked to identify a pronounced target by indicating its position, top or bottom, in the pair. Pseudoword pairs were identical except for vowels in the medial position. Reaction times were recorded. Subjects were tested individually, with 144 experimental test trials per subject. No differences in reaction time were found for type of reader or for type of letters in the medial position (long vowel, short vowel, or vowel digraph). A significant effect was found for individual words in the long-vowel condition.

Wolff, Diana E., Desberg, Peter; & Marsh, George. Analogy strategies for improving word recognition in competent and learning disabled readers. *The Reading Teacher*, January 1985, *38*, 412-416.

Views several instructional approaches to teaching analogy as a word analysis strategy in an effort to identify ways of encouraging children to utilize this strategy. Subjects were 80 normal achieving second grade pupils, 80 normal achieving fifth graders, and 80 educationally handicapped (EH) or learning disabled (LD) fifth graders. All children were given the *Wide Range Achievement Test* (WRAT), Level I and were assigned to one of three experimental groups or to a control group. Pupils then did a 10-nonsense word test (WRT) in which all nonsense words had real analogues. In one experimental group, the nonsense word was presented, children were asked to think of a word that would look like it if the first letter were changed, and then to pronounce the nonsense word. The second experimental group was asked to read the analogue word first and then the nonsense word. The third group combined the verbal instructions of the first group with the prompt of the second group. All children were then given a five-word transfer task (TT). For the WRT, all treatments were significantly better than the control treatment in getting pupils to use analogy strategies. For the TT, subjects in the first experimental condition performed better than those in the other treatment conditions. Second graders and LD pupils used substitution strategies to some degree, but good fifth graders seldom did.

McKinney, James D., & Feagans, Lynne. Academic and behavioral characteristics of learning disabled children and average achievers: Longitudinal studies. *Learning Disability Quarterly*, Summer 1984, *7*, 251-265.

Reports the first of a series of studies from the Carolina Longitudinal Learning Disabilities Project where the development of 6- and 7-year-old LD and normally achieving children were studied over an extended period of up to three years. Areas assessed were: language (semantics, syntax, pragmatics); cognition (visual perception, information processing, concept acquisition); and adaptive behavior (parent and teacher ratings and classroom observations). Health, education, and family histories were also collected. Subjects were chosen from three school districts representing urban, rural, and suburban areas, and included 63 classified as LD and 66 classified as non-LD. Assessment measures were: the *Pupil Rating Scale* (PRS), the *Learning Disability Index* (LDI), the *Wechsler Intelligence Scales for Children-Revised* (WISC-R), and the Reading Recognition, Reading Comprehension, and Math subtests of the *Peabody Individual Achievement Test* (PIAT). Behavior ratings were obtained using the *Classroom Behavior Inventory* (CBI) and the *Schedule for Classroom Activity Norms* (SCAN). Over the three-year period, the type of delivery service remained unchanged, and the severity of disability varied slightly. In academic achievement, LD subjects fell further behind their non-LD counterparts in some aspects of reading, but stayed about the same level behind in math. Observations suggested less on-task behavior for the LD students over the 3-year-period.

Dana, Carol. Case studies on a time-efficient technique for teaching decoding. In George H. McNinch (Ed.) *Reading Research to Reading Practice*. Third Yearbook of The American Reading Forum. Athens, GA: The American Reading Forum, 1983, 13-14.

Presents two case studies of children taught to decode by a technique of teaching phonics which was developed by the author. Ten phonic generalizations were taught using mnemonic and imagery devices involving the use of names and pictures which provided clues to the generalizations. The order of presentation of the generalizations was determined by two factors: 1) letter patterns that were easiest to learn, and 2) letter patterns frequently found in words. For each case study background, specific teaching procedures and results are reported.

Ganschow, Leonore; Weber, Donald B.; & Suelter, Susan K. To remediate reading-like behavior, teach a beginner to self-monitor. *The Reading Teacher*, April 1984, *37*, 718-721.

Examines the efficacy of an instructional strategy based on self-monitoring, feedback, and rewards to alter the "reading-like" behavior of a 7½-year-old girl referred to a university clinic for diagnosis and remediation. On the *Peabody Individual Achievement Test*, she had a reading recognition of 1.3, a reading comprehension score of 2.0, and a general information score of 3.2. Oral reading assessment indicated that her language and phrasing during reading simulated text, but because she rarely looked at the text, miscue rate was high. Training consisted of adult modeling of passages, the student reading passages orally while being taped, listening to the tape while marking the passage with a tutor for words read correctly, and tallying correctly read words. All correctly read words were then reread by the child while the tutor recorded each correct response. Accurate responses were worth token points used to purchase items from a reward store. Results indicated that correct reading of words in context increased and insertions decreased substantially from baseline performance. A continued high level of performance was noted three months later.

LOVELACE, TERRY L. Evaluation of a second grade compensatory/remedial program. In George H. McNinch (Ed.) *Reading Research to Reading Practice.* Third Yearbook of The American Reading Forum. Athens, GA: The American Reading Forum, 1983, 78-79.

Reports the results of a remedial program in language arts and arithmetic. Subjects (n = 141) were second grade pupils from two elementary schools, who were identified as needing remedial education. Individual subjects were matched on the basis of sex, race, socioeconomic status, chronological age, and mental age as determined by the *Primary Mental Abilities Test.* Pupils were then randomly assigned to 11 second-grade classrooms. In four classrooms an experimental eclectic approach to remediation was adopted in which the principles of diagnostic/prescriptive teaching were followed for 50 minutes daily by a teacher, while those not in the remedial program studied Social Living with a co-teacher. In another four classrooms a teacher reinforced previous classroom instruction for the same period, while a co-teacher taught Social Living to the other students. Three classrooms acted as controls, with no remedial treatment, and no co-teachers. Subjects were tested in November and May on the *SRA Achievement Test.* An analysis of the composite gain scores on this test revealed differences across the three groups ($p < .02$). Pupils in the experimental group scored better than those in the control group, who scored better than those in the traditional group. It was later found that teachers in the control group classrooms had obtained information about innovative techniques and diagnostic procedures from teachers using the experimental eclectic approach.

NIELSEN, LORE, & LOVELACE, GRACE. A case study of the same poor readers in secondary developmental and remedial settings. In George H. McNinch (Ed.) *Reading Research to Reading Practice.* Third Yearbook of The American Reading Forum. Athens, GA: The American Reading Forum, 1983, 57-60.

Examines the behaviors of eighth grade students in both a developmental and remedial reading program. Subjects (n = 18) were part of a compensatory education program at three schools. Each school operated a developmental reading lab and a remedial reading lab. The subjects, who participated in both labs, were observed three times in each setting and behaviors recorded on an experimenter developed task sheet concerning work involvement and teacher/student interactions. Interviews were conducted with the lab directors and students involved. Among other findings were that students were on-task for 83% and 88% of the time for the developmental and reading labs respectively, students spent more time on instructional activities in the remedial lab, students spent relatively more time on management activities in the developmental lab, more of the interactions in the remedial lab were concerned with instructions and assistance, but that the director initiated interactions most of the time in both settings. Student interview responses were mixed concerning their preferences for each lab. Lab directors described the remedial labs as more structured than the developmental labs.

Russavage, Patricia M., & Arick, Karen L. Repeated readings with peer tutors. In Linda B. Gambrell (Ed.) *Reading: Process, Instruction and Assessment.* College Park, MD: The State of Maryland International Reading Association, 1984, 25-36.

Evaluates the effects of repeated readings and peer tutoring on the word recognition ability and reading attitude/self-concept of eight fourth-grade and two fifth-grade pupils with reading difficulties. The subjects, all of normal intelligence, were volunteers in this twice-a-week, six-week program. Self concept was assessed with an experimenter constructed questionnaire; word recognition was assessed with the *Botel Reading Inventory.* For three of the six weeks, subjects took the pretests, selected the book to be read, and read that book silently. In the fourth and fifth week, the subjects practiced reading the book orally and then read it to a kindergartener. Posttesting was done in the last week. Nine of the 10 subjects scored higher on the posttest of self concept and most of the pupils scored higher on the Botel posttest than on the pretest.

Rashotte, Carol A., & Torgesen, Joseph K. Repeated reading and reading fluency in learning disabled children. *Reading Research Quarterly,* Winter 1985, *20,* 180-188.

Investigates whether with reading disabled subjects repeated reading is more effective than an equal amount of nonrepetitive reading and whether the degree of word overlap among passages affects comprehension and fluency in repeated reading. Subjects were 12 learning disabled children, ages 8.6 to 12, who were asked to read a number of second grade passages. Passages were randomly assigned to one of three conditions: 1) repeated reading in which the number of words shared among stories was low and relatedness of context was minimal; 2) repeated reading in which the word overlap among passages was high; 3) passages similar to condition 1 but each passage read only once. Experimental conditions each lasted 15 minutes daily for seven days and included four passage presentations with four comprehension questions following the first reading and one comprehension question after each remaining reading. Feedback on reading speed and word accuracy followed each reading. Each subject participated in all three conditions. Mean speed gains in Condition 2 were greater than in Condition 1. Differences in speed gains between conditions 2 and 3 and 1 and 3 were not significant. No significant differences were noted for comprehension.

Blum, Irene H., & Koskinen, Patricia S. Adapting repeated reading for use in the classroom. In Linda B. Gambrell (Ed.) *Reading: Process, Instruction and Assessment.* College Park, MD: The State of Maryland International Reading Association, 1984, 14-24.

Works with 18 experienced teachers in evaluating the effects of repeated readings on 46 remedial readers in grades two through six. Pupils and teachers were participants in a summer reading program in a university reading clinic. Pupils read aloud 100-word passages, jointly selected by teachers and pupils, to another pupil three consecutive times, recorded their reading time, and evaluated their own reading after each reading. The repeated reading strategy was used two or three times weekly for five weeks. Of the 18 teachers, 17 reported that the strategy could be incorporated into classroom instruction and that they would use it again. Reports that 98% of the pupils enjoyed using the technique and 93% thought it helped in understanding what was read.

Waldron, Karen A. The effects of an intermediary placement of learning disabled and low-achieving adolescents. *Journal of Learning Disabilities,* March 1985, *18,* 154-159.

Explores the effectiveness of an intermediary program between resource room and regular classroom placement for middle- and secondary-school learning disabled students.

The "Learning Laboratory" combined secondary handicapped students, the majority of whom were learning disabled, and low-achieving regular students (functioning academically in the lower 25% of their classes) in their reading and mathematics classes. Features of the Laboratory included involvement of both regular and special education teachers, individualized instruction, and additional materials for teaching reading and arithmetic. Students participated in 50-minute daily class sessions. Data were collected from five participating school districts. At the middle school level, 373 Laboratory pupils were matched on the basis of academic classification, IQ, sex, and grade level with 446 local school district pupils not experiencing the program. At the high school level, 468 Learning Laboratory students were matched with 460 controls. After a year, analyses of pre- and postscores on alternate forms of the *Stanford Achievement Test* indicated that only sixth to eighth grade children enrolled in the special classes showed significant gains in total reading scores when compared with nonparticipating students. Additional data were collected on number of absences within a 100-day period. Low-achieving regular students at all grade levels enrolled in the Laboratory program had a significantly greater number of absences than did control students.

LEVY, DEBORAH L., & ELLIS, WILLIAM. A clinical model of treatment of dyslexia. In Rosemary F. Bowler (Ed.) *Annals of Dyslexia*, Vol. 34. Baltimore, MD: The Orton Dyslexia Society, 1984, 285-296.

Describes a model program by which parents and private clinics for the learning disabled may measure the strengths and limitations of diagnostic and remedial programs. The topics discussed are evaluation procedures, the summary of the evaluation, reporting to parents the individualized educational plan and reassessment. Preliminary results of the model remedial program carried out for 16 weeks with 23 five- to eight-year-old children are reported. The pre- and posttest scores on the *Wide Range Achievement Test*, the *Detroit Test of Learning Aptitude*, and the *Developmental Test of Visual-Motor Integration* were compared.

ROBSON, DAVID; MILLER, ANDY; & BUSHELL, ROGER. The development of paired-reading in High Peak and West Derbyshire. *Remedial Education*, November 1984, *19*, 177-183.

Describes the development of a paired-reading program as a means of teaching parents of seriously failing children some techniques for listening to the reading of their children. Phase I of the program was a pilot project in which pupils were tested with the *Neale Analysis of Reading Ability* and the *Full Range English Picture Vocabulary Test*. Over a two-month period parents read for 20 minutes nightly, six nights weekly, keeping reading records; they were visited every fortnight by an educational psychologist. An alternate form of the Neale Analysis, administered as a posttest, revealed an average gain of about six months in reading accuracy and a year in comprehension for the 22 children involved. Phase II featured an eight-week bookpush to which one group of children was exposed following completion of six weeks of paired reading. Only seven parents of the 33 children involved in bookpush returned any of the recording sheets and only two of them had kept comprehensive accounts as they had maintained in the initial phase, the paired reading period. However, results of this phase revealed that children experiencing serious reading difficulties could make reasonable gains in reading ability by involving their parents in a paired-reading project. It likewise demonstrated that among the 6% or so of least able readers in 13 schools, about three in five parents were willing and/or able to participate. Phase III was intended primarily to ascertain if the schools would initiate parent involvement projects if the support services were flexible enough to cater for their individual needs and characteristics. Responses of a structured interview were obtained from 13 schools. Seven schools had initiated changes of some type since their involvement with paired reading. Five had used paired reading since the initial involvement, three were using it on a teacher/child basis, one on a child/child basis, and one was still encouraging parents to use it. Several schools indicated plans for future use of the program.

Webb, Martin; Webb, Terry; & Eccles, Geoff. Parental participation in the teaching of reading. *Remedial Education*, May 1985, *20*, 86-91.

Describes a program of parental involvement in teaching reading. Based on scores on the Daniels and Diack test 12, 10 children were identified for an experimental group and 10 for a control group. Parents of experimentals were contacted and given a list of 10 reading activities to engage in with their children. Three of these were explained in detail. After a month in the program, a follow-up visit was made to eight of the 10 sets of experimental group parents for the purpose of reviewing progress and correcting difficulties. After approximately two months, children were retested and parents completed a questionnaire. Experimentals showed a mean growth of 7.2 months in Reading Experience Age while controls showed a mean growth of exactly half that. Parent questionnaire data revealed a positive attitude towards the program.

Holdsworth, Pauline. An exciting year with Direct Instruction: Working with junior school children. *Remedial Education*, November 1984, *19*, 149-153.

Gives results of two small scale evaluation type studies of a British corrective reading program for children with a wide range of educational needs. The first study reported progress of nine children, ages 9-12, after two terms in the program. Alternate forms of the *Neale Analysis of Reading Ability* were used as pre- and posttest measures. The program involved parents as well as very teacher-directed and highly structured lessons. The nine children showed a growth in Reading Age ranging from four months to 14 months. The second report included six pupils, ages 10 to 11, who were involved in the program over a two-and-a-half month summer term. Again, the Neale Analysis was used to pre- and posttest and parents were involved. Five children showed gains in both reading accuracy and comprehension; one pupil showed a loss. Five of the latter group were followed when children returned to their own schools. Results were uneven, with only two children showing a gain.

Topping, Keith, & McKnight, Gill. Paired reading—and parent power. *Special Education*, September 1984, *11*(3), 12-15.

Summarizes findings from a number of British studies on Paired Reading and presents limited information evaluating such a program in a school for children with moderate learning difficulties. Paired Reading is a program in which parents and children read together at home anywhere from 5 to 15 minutes daily. Children choose the books to be read; immediate correction is given for errors and much praise is given for correct reading. In the 14 projects summarized, much success was found with the program. In the brief report of the special school, three projects were run, each lasting 7 to 8 weeks, and involving 7, 6, and 5 pupils, respectively. The *Neale Analysis of Reading Difficulty* was given as a pre- and posttest. Mean comprehension age gain on the Neale was 32 weeks for children in the first project, 52 weeks for pupils involved in Project 2, and 51 weeks for those included in Project 3.

White, Phil; Solity, Jonathan; & Reeve, Chris. Teaching parents to teach reading. *Special Education*, March 1984, *11*(1), 11-13.

Reports on the Pairs Project, a program engaging parents of children whose primary school perceives them to be having learning difficulties. In the project, parents are instructed in the use of precision teaching techniques; in specific skills' instruction of sight words, vocabulary, phonics, oral reading, and spelling; and in daily planning and charting. Using the *Neale Analysis of Reading Ability* as a criterion measure, 13 children, ages 7.4 to 12.6, were followed. All parents had agreed to participate. Parents were asked to teach their children regularly for no more than 10 minutes daily and were instructed in the use of probes for daily checking and in charting. A mean gain of 13 months in reading accuracy and 17 months in comprehension was found on the Neale.

Belcher, Margaret. Parents can be a major asset in teaching reading. *Remedial Education*, November 1984, *19*, 162-164.

Describes a remedial program in a junior school in England. As part of the implementation of the program, parents were directly involved in instruction. In the first year of the program, 24 children were involved, with seven being singled out for help by parent-tutors, while five were in a comparison group which had no parental help, but did have direct assistance in the form of precision teaching at the hands of the program's language coordinator. Six months later, some of those who had parent assistance began to score on the *Spooncer Group Reading Assessment*. Although both groups showed growth, reading ages of those receiving parental help increased more than those receiving no special attention.

Spalding, Bob; Drew, Rosemary; Ellbeck, Jennie; Livesay, June; Mussel, Margaret; & Wales, Debbie. 'If you want to improve your reading ask your mum'—An attempt to involve parents in the reading process at secondary age level. *Remedial Education*, November 1984, *19*, 157-161.

Compares experimental and control groups of first year secondary age students drawn from the remedial departments of three different comprehensive (British) schools. The 16 experimental students were visited at fortnightly intervals by a teacher who discussed with parents the paired reading technique, their children's difficulties, and the importance of hearing them read at least 10 minutes nightly, while an equal number of control subjects had no such experience. The project was continued over two terms with attempts being made to gauge accuracy and comprehension as well as attitude toward reading and reading strategy. Little difference in increase in accuracy age was found, but there was a considerable difference in comprehension age favoring experimentals. Four case studies of children who had met with varying degrees of success were presented.

Sigston, Allan; Addington, Jo; Banks, Viv; & Striesow, Michael. Progress with parents: An account and evaluation of a home reading project for poor readers. *Remedial Education*, November 1984, *19*, 170-173.

Describes the Home Reading Project that focused particularly on older and less able pupils in a British school district. Prior to its inception all third and fourth year juniors were tested on the Daniels and Diack *Graded Test of Reading Experience*. The 16 least able fourth year pupils as well as the 17 least able third year pupils were the target group. Each of the subjects was tested with the *Salford Sentence Reading Test*, and on a phonic check covering a number of blends and digraphs. Parent meetings drew 29 of the 31 sets of parents who pursued the home activities for 10 weeks of the school term. Parents heard their children read daily and recorded the number of lines read. Additionally, classroom teachers heard children read three times a week and provided follow-up phonic worksheets; headteachers checked phonic worksheets and were responsible for maintaining a wall chart on the number of lines read. The remedial teacher ensured that children had books of appropriate difficulty. Of the total group, 31 children showed higher reading ages on a retest. A parent questionnaire showed strong support for the program.

Burgess, Jacqueline Richburg. Modifying independent leisure reading habits at home. *The Reading Teacher*, May 1985, *38*, 845-848.

Reports a behavior modification program for 32 remedial reading children (22 boys and 10 girls from second to eighth grades) who rarely read at home, as reported on a informal survey. Subjects attended parochial schools and were at least two levels below grade expectancy in reading. Letters and a home reading calendar were sent to parents. Each parent recorded the frequency of home reading by signing the calendar whenever the child selected a book, magazine, or newspaper and read it for at least 10 minutes. Subjects were rewarded with stickers and erasers for each parental signature. Frequency of reading increased; the group averaged 10 minutes of home reading for 17 of the 31 days.

WHEELER, ROBERTA. Teaching reading according to students' perceptual strengths. *Kappa Delta Pi Record*, December 1980, *17*, 59-63.

Determines whether 16 second-grade children enrolled in a Learning Disabilities class could increase reading efficiency when learning through resources that complemented their perceptual strengths. Subjects were given informal diagnostic tests to identify perceptual strengths and weaknesses and placed into instructional groups on the basis of perceptual strengths. Seven students were given visually oriented tasks and materials, 4 were given auditory, and 5 were given tactile, as they had weaknesses in both visual and auditory perception. Subjects were pretested on 18 words randomly chosen from the Dolch list, engaged in perceptually-oriented tasks and materials for 25 minutes a day for three weeks, and were posttested with the same list to determine the number of words learned. Results were compared with the amount of reading vocabulary learned the previous year in a nonperceptually-oriented program. Pretest mean score was 3.25 words and posttest mean score was 15.8.

RISKO, VICTORIA J., & ALVAREZ, MARINO C. Thematic organizers: Application to remedial reading. In George H. McNinch (Ed.) *Reading Research to Reading Practice.* Third Yearbook of The American Reading Forum. Athens, GA: The American Reading Forum, 1983, 85-87.

Summarizes previously published and unpublished research by the authors and others concerning the relationship between teaching thematic concepts prior to reading and reading comprehension. Thematic organizers define the major thematic concept of a passage, relate the reader's prior experience to this concept, and instruct the learner to use this information while reading the text. Assessment in the studies described was based on recall of idea units of relative structural importance. Results across the studies with fourth-, fifth-, and sixth-graders, junior high school students, and college students, indicate that teaching thematic organizers enhances both literal and inferential comprehension.

SOLAN, HAROLD A. Deficient eye-movement patterns in achieving high school students: Three case histories. *Journal of Learning Disabilities*, February 1985, *18*, 66-70.

Presents case histories of three academically motivated and achieving high school students who were experiencing a visual functional disorder which limited the capacity to read and study for extended periods of time. Their eye-movement graphs showed patterns of reading which were inefficient and laborious. A concurrent treatment plan was developed which stressed: 1) correcting the visual functional disorder; 2) providing specific training on the tachistoscope, Controlled Reader, or Guided Reader to improve reading efficiency; and 3) providing appropriate instruction in vocabulary and comprehension. All three subjects showed improvement in reading efficiency and visual functioning. Gains on the *Iowa Silent Reading Tests* were noted for two of the three subjects.

WILSHER, C.; ATKINS, G.; & MANFIELD, P. Effect of Piracetam on dyslexic's reading ability. *Journal of Learning Disabilities, January 1985, 18*, 19-25.

Sets up an eight-week, double blind experiment to determine if the drug Piracetam would improve the reading achievement of 46 dyslexic boys. Subjects had all been referred to a clinic, ranged in age from 8-13 years, and were of above average intelligence (Mean IQ = 116.7). The discrepancy between WISC-R Mental Age and Reading Age (*Neale Analysis of*

Reading Ability) or Spelling Age was more than two years. A placebo and a Piracetam group were established and results assessed by means of pre- and posttests on the *British Abilities Scales Word Reading Test* and the Neale Analysis. While overall no significant group effects were found, the within-group analysis revealed that the Piracetam group made significant gains in reading speed and accuracy when compared to their baseline. Boys with higher reading ages improved significantly compared to the placebo group.

V-12 Teaching—bilingual/other language learners

SCHON, ISABEL; HOPKINS, KENNETH D.; & VOJIR, CAROL. The effects of special reading time in Spanish on the reading abilities and attitudes of Hispanic junior high school students. *Journal of Psycholinguistic Research*, January 1985, *14*, 57-65.

Determines the effect of providing special reading time with a wide variety of reading materials on the reading abilities, reading attitudes, and academic self-concepts of approximately 400 Hispanic junior high school pupils. Sixteen seventh- and eighth-grade reading teachers in the experimental school were provided with a wide variety of newspapers, magazines, and books in Spanish, and were instructed to provide at least 45 minutes a week of free reading time in substitution for one of the daily reading classes and to encourage students to read the Spanish materials. Treatment was continued for 8½ months, with five of the 16 teachers conscientiously following the implementation procedures. Hispanic children in the classes of those 16 teachers in the same school in years previous served as the control group. Control group children had been taught basic English reading skills if they were members of the lowest reading group and English/American literature if in the advanced reading classes. Analysis of covariance with the *Stanford Achievement Test* scores in Reading used as a covariate revealed that on measures of Spanish reading the experimental group excelled, while on measures of English reading there was a trend for the control group to do better. For the investigator-designed measures of attitude and academic self-concept, the differences between the groups were not significant. The pattern of results was consistent for both sexes, for children who were and were not taking a Spanish language course, and for pupils whose teachers taught in both the experimental and control conditions. Experimental teachers who were conscientious in implementing the treatment tended to have pupils with significantly greater gains in English and Spanish reading achievement. In addition, within the experimental group, there were low but positive correlations between growth in both English and Spanish reading.

KLEINMANN, HOWARD H. The effect of reading laboratory instruction on ESL growth. *Research & Teaching in Developmental Education*, 1985, *1*(1), 38-52.

Studies the reading gains made by 324 College English as a Second Language (CESL) students enrolled in a reading laboratory. Students were initially placed into reading courses based on pretest scores on the *Descriptive Test of Language Skills: Reading Comprehension* (DTLS). Two groups of students were involved. One group met for four hours per week of instruction in a lecture format; the second group met three hours weekly in a lecture format and one hour per week in a reading laboratory where they received individualized instruction and access to various materials. Students were divided into three ability levels based on DTLS scores: Elementary, Intermediate, and Advanced. With all ability levels combined, reading lab users made significantly greater gains on the DTLS than did the straight lecture group. No significant differences were found between the two groups at the elementary ability level.

HOFFER, KATHLEEN R. Assessment and instruction of reading skills: Results with Mexican-American students. *Learning Disability Quarterly,* Fall 1983, *6,* 458-467.

Reviews research and writings on the current status of Mexican-American (MA) students' reading achievement and the relation to assessment and instructional reading programs. By the time MA children are in sixth grade, they exhibit a reading achievement lag of about two years and remain behind their Anglo counterparts in reading achievement. Part of this difficulty in reading is a function of poor test validity, cultural biases in tests, limited availability of appropriate test instruments, misinterpretation of test results, misplacement into special classes, and inappropriate educational services. The reviewer suggested that more instruction is needed in the first language prior to transfer of academic tasks to the second language. Additionally, criterion-referenced assessment appears to be more appropriate for monitoring progresses in reading in programs with MA children.

ELLEY, WARWICK B., & MANGUBHAI, FRANCIS. The impact of reading on second language learning. *Reading Research Quarterly,* Fall 1983, *19,* 53-67.

Tests the hypothesis that repeated exposure to high-interest illustrated story books in a second language will aid in the learning of that target language. A sample of 380 Class 4 and Class 5 children, ranging in ages from 9 to 11, from eight rural Fijiian schools were provided with 250 high-interest story books in English. Pupils were randomly assigned to one of three treatments: 1) the Sustained Silent Reading of books, 2) the Shared Book Experience, or 3) a control group, employing the traditional language program with little emphasis on reading. The 16 participating teachers were given directions in the two treatment methods designed to encourage subjects to read the books. Pre- and posttests were administered to all pupils. Posttest results after eight months showed that pupils exposed to picture books progressed in reading and listening comprehension at twice the rate of the control group. Comparisons of treatment conditions showed that the Shared Book method showed significantly greater benefits in Class 5, but the measured impact of the two approaches was very similar in Class 4. After 20 months, the gains had increased further and spread to related language skills.

LEE, YOUNG JA. Contextual reading. In Byong Won Kim (Ed.) *Reading English in Asia.* The First Yearbook of Literacy and Languages In Asia. Seoul, Korea: Literacy and Languages in Asia, 1984, 93-103.

Compares two groups of college freshmen enrolled in required elementary English reading courses in Korea. In one class, the 39 students were required to translate an English paragraph and then to translate it again, but this time also to write the gist of the paragraph. A second class of 60 students translated the paragraph and then wrote the gist. Both groups stated the gist with 100% accuracy. The first group's second translation was 85% correct, as was the second group's only translation. However, the first group's first translation was only 63% correct. An informal analysis of the translation of one sentence within the paragraph indicated a lack of attention to the larger context. Remedial instruction procedures are suggested.

V-13 Tests and testing

V-13a Factors in test performance

JOHNSTON, PETER. Prior knowledge and reading comprehension test bias. *Reading Research Quarterly,* Winter 1984, *19,* 219-239.

Postulates that reading comprehension test scores are affected by an individual's reading comprehension ability and prior knowledge, and demonstrates the consequences of inability to distinguish between these two sources of test score variance. Subjects were 207 eighth graders who were ranked according to scores on standardized reading comprehension tests and placed in three groups: Group 1 had the text available while answering questions; Group 2 could not look back but answered questions as soon as they finished reading; and Group 3 could not look back but had an interpolated task between reading and answering. A fourth group served as controls. All took a content specific vocabulary test first, as a measure of prior knowledge. Prior knowledge influenced comprehension of texts independent of intelligence and other between-subjects confounding variables. Scores were collapsed across text content areas, removing the bias due to prior knowledge but increasing the bias related to intelligence. When bias was removed statistically from each passage score before aggregating the passage scores, the extent to which IQ explained performance was reduced significantly. Coefficients of correlation between IQ and comprehension were higher when the text was not available and questions were immediate; reverse trends were evident for correlation coefficients between comprehension and prior knowledge. Differences among sentence types were significant, with textually explicit questions easier than textually implicit or scriptally implicit. Peripheral questions were more easily answered when text was present. Central questions were more easily answered when text was not available. When text was not present, performance on textual questions was lower, while performance on scriptal questions was higher.

SCRUGGS, THOMAS E.; BENNION, KARLA; & LIFSON, STEVE. An analysis of children's strategy use on reading achievement tests. *The Elementary School Journal*, March 1985, *85*, 479-484.

Examines the spontaneously employed test taking strategies of elementary age children and the effectiveness of these strategies in increasing reading test scores. Numbers of pupils used at each grade level were: Grade 1 (2), Grades 2 and 3 (20), Grade 4 (2), Grade 5 (5), Grade 6 (2). Twenty pupils read at or above grade level and 11 read below grade level as determined by the *Woodcock Reading Achievement Test*. Pupils were given selected items from the Word Reading, Reading Comprehension, Word Study Skills, and Vocabulary subtests of the *Stanford Achievement Test*. Items were from a level that was one year higher than pupils' assessed grade level on the Woodcock. Pupils first read items aloud and rated their level of confidence in their response. Children then reread the questions and were asked to state why they had selected their answer. Strategy responses were classified into a 10-level hierarchy and proportions of correct responses were computed for each type of strategy. When children reported guessing as a strategy, they scored 37% correct. Pupils' level of confidence in their response was relatively accurate. When they reported being very sure of the answer, they were correct 81% of the time; when they reported being not sure, the answers were correct only 7% of the time. However, when children answered incorrectly, 56% of the time they reported being very sure the answer was correct. Even when children misread one or more words in a stem or distractor, the proportion of correct responses was 58%.

BOYLE, SEAN. The effect of variations in answer-sheet format on aptitude test performance. *Journal of Occupational Psychology*, December 1984, *57*, 323-326.

Notes the impact of three different types of answer sheets on speed and power performance on the *General Aptitude Test Battery*. Subjects were 302 young adults applying for training courses in the Dublin area. The three types of answers sheets used were: National Computer Systems (NCS), Opscan, and Data Research Services (DRS). Subjects tested numbered 99 for NCS, 102 for Opscan, and 101 for DRS. A two-factor, repeated measures analysis of variance revealed a significant interaction between subtests and type of answer sheet. Additional analyses indicated that performance on speed tests was affected by answer sheet format, but performance on power tests was not.

SCRUGGS, THOMAS E., & TOLFA, DEBRA. Improving the test-taking skills of learning disabled students. *Perceptual and Motor Skills*, June 1985, *60*, 847-850.

Assesses the effectiveness of training 16 second- and third-grade learning disabled children in specific test-taking skills on their performance on standardized achievement test items. Pupils were individually matched on the basis of grade and previous year's reading test score and assigned at random to either experimental or control groups. General test-taking strategies were taught in a direct-instruction format, including attending, marking answers carefully, choosing the best answer carefully, error-avoidance strategies, and appropriate situations for soliciting the teacher's attention. Specific test-taking strategies were taught for each reading subtest in the *Stanford Achievement Test* (SAT). Experimental subjects were taught in small groups for four 20-minute lessons per week for two weeks. Following training, all children were administered shortened versions of the reading subtest of the SAT. Percentages of correct items for experimental and control pupils were compared statistically by means of *t* tests for independent means for Word Study, Reading Comprehension, and combined scores. Learning-disabled children trained in test-taking skills significantly outperformed their untrained peers on the Word Study Skills subtest but not the Reading Comprehension subtest or the total subtests.

ASLANIAN, YEGHIA. Investigating the reading problems of ESL students: An alternative. *ELT Journal*, January 1985, *39*, 20-27.

Argues that reading comprehension is not adequately assessed by using only psychometric measures such as multiple-choice questions, cloze procedures, or fill-in-the-blank tasks. Presented are transcripts of interviews with their English as a Second Language (ESL) college students who were asked to verbalize the reasons for their responses to a brief passage followed by two multiple-choice questions. It is noted that the interviews point out that the three students do not have the same problems, but that this can be discovered only from a discussion-based interview with the teacher.

V-13b Predictive studies

DAY, KAAREN C., & DAY, H.D. Kindergarten knowledge of print conventions and later school achievement: A five-year follow-up. *Psychology in the Schools*, July 1984, *21*, 393-396.

Reports predictive validity coefficients for the *Concepts About Print* (CAP) test administered in kindergarten in a five-year follow-up study. The CAP was administered to 56 children on three occasions during kindergarten and twice to available subjects in first grade. Also used were the *Short Form Test of Academic Aptitude* (TAA), given in grade two, the *Texas Assessment of Basic Skills* (TABS) given in third grade, and the *Iowa Test of Basic Skills* (ITBS) administered at the end of grades 2 through 4. The correlation coefficients between the five administrations of the CAP and the total raw or grade equivalent scores for the TAA, TABS, and ITBS were positive and generally high; coefficients were generally higher, though not significantly so, for girls than for boys. Eight of the original 56 subjects (six boys and two girls) were required to repeat a grade during the five-year period of the duration of the study. For each CAP administration, the mean score for the eight retainees was significantly lower than that of the children who passed. Furthermore, on each CAP administration, those children who would later be held back were very close to the bottom of the distribution. The correlation coefficient between the first CAP administration and the ITBS at grade 4 was .74.

Otto, Beverly J., & Sulzby, Elizabeth. Judging the emergent reading abilities of kindergarten children. In Jerome A. Niles & Larry A. Harris (Eds.) *New Inquiries in Reading Research and Instruction.* Thirty-first Yearbook of The National Reading Conference. Rochester: The National Reading Conference, 1982, 170-176.

Describes the development and validation of an assessment tool for judging the emergent reading abilities of young children. Subjects ($n = 9$) were identified as being either high, moderate, or low in emergent reading ability at the beginning of the kindergarten year on the basis of interviews and teachers' judgments. Children were asked to dictate a story and reread it, and write a story and reread it in January, February, and April/May. Behaviors were scored, for each rereading, on a seven-point scale varying from no evidence of reading/writing to tracking the print and matching the voice to the print. Scores on the scale differed according to ability grouping ($p < .025$). A rank order correlation coefficient between scores on the scale and scores on the *Metropolitan Readiness Test*, administered in November, was $r = .80$ ($p < .05$).

Swanson, Beverly B., & Mason, George E. Measuring early reading progress: Some nontraditional measures. *Journal of Educational Research*, November/December 1984, *78*, 90-96.

Investigates the relation between six recently developed measures of abilities and/or attitudes related to early reading achievement and their powers to predict first-grade reading achievement in an attempt to determine the value of the use of the nontraditional measures in conjunction with other measures. The nontraditional measures included: 1) the Mickish *Word Boundary Test* (W-B), 2) Dinnan's *Paradigmatic/Syntagmatic Oral Language Inventory*, 3) Watson's *Units of Print Test* (UOP), 4) the *Heathington Attitude Scale*, 5) Rozin's *Mow-Motorcycle Test*, (M-M), and 6) Downing's *Language Awareness in Reading Readiness Test*, (LARR). Subjects were first graders in Oglethorpe County, Georgia. Half of the children were from lower middle class families or families with limited incomes. Measures obtained by the school included: 1) the *Slosson Intelligence Test for Children and Adults*, 2) the *Metropolitan Primary Reading Test*, 3) the *Metropolitan Achievement Test*, and 4) the Hollingshead two-factor Index of Social Position. Data were analyzed to ascertain correlations between early and later administered measures and their respective coefficients of correlation with end-of-first grade achievement. Results indicated measures were highly related to reading performance but only one, the LARR, made a significant addition to predictions based on standardized test scores. Three measures, the UOP, the M-M, and the W-B were indicated as useful benchmark measures.

Gullo, Dominic F.; Clements, Douglas H.; & Robertson, Linda. Prediction of academic achievement with the McCarthy Screening Test and Metropolitan Readiness Test. *Psychology in the Schools*, April 1984, *21*, 264-269.

Examines the efficacy of the *McCarthy Screening Test* (MST) and the *Metropolitan Readiness Test* (MRT) to predict academic readiness at the end of kindergarten and achievement at the end of first grade. Subjects were the entire entering kindergarten class of 88 boys and girls in an upper middle-class suburban school district. End of first grade reading achievement was assessed by the *Scott, Foresman Achievement Test* (SFAT). Regression analyses indicated that the MST accounted for 43% of the variance of the MRT Reading score and 37% of the variance on the SFAT; the MRT accounted for 57% of the SFAT's variance.

BUTLER, SUSAN R.; MARSH, HERBERT W.; SHEPPARD, MARLENE J.; & SHEPPARD, JOHN L. Predicting reading achievement from kindergarten to third grade – Implications for screening. *Australian Journal of Education*, November 1983, *27*, 288-303.

Undertakes a study to evaluate the predictive validity of a broad, comprehensive battery of tests, administered to kindergarten, to identify children with a high risk of reading failure. Data were reported on 320 Australian children tested in kindergarten and at the end of grades, 1, 2, and 3. Scores on the *Peabody Picture Vocabulary Test* and the *Slosson Intelligence Test* were combined to form a single IQ variable. Factor analysis of the *Schonell Graded Word Reading Test*, the *Daniels and Diack Standard Test of Reading Skill*, and the *Australian Council for Educational Research Lower Grades Reading Test* (ACER), administered in grade 1, and the Schonell, and *Doren Diagnostic Reading Test of Word Recognition Skills*, administered in grade 2, and the *Stanford Diagnostic Reading Test*, and the Schonell, administered in grade 3, led to a decision to utilize only a combined reading score for each year. The six predictor factors which underlay the tests administered to the kindergarten children included: Psycholinguistic abilities, Figure drawing, Language, Rhythm, Perceptual motor, and Spatial/Form perception. In addition to these, the two background variables of Sex, and Parent's Language were considered. Results of stepwise multiple regression indicated that 34%; 42%; and 49%, respectively, for grades 1, 2, and 3, of the variance in reading score is predictable when each of six factors was correlated with reading performance. The two background factors contributed little beyond what could be gleaned from the six. The most important variables were: Psycholinguistic abilities, Language, and Spatial/Form perception.

KAUFMAN, RACHEL M. Early identification procedures in kindergarten and subsequent third grade reading achievement. In Linda B. Gambrell (Ed.) *Reading: Process, Instruction and Assessment*. College Park, MD: The State of Maryland International Reading Association, 1984, 62-71.

Correlates scores on three measures of kindergarten performance with reading achievement in third grade. The study involved 150 randomly selected students who had a scholastic ability score of 90 or above on the *Otis-Lennon Test of Mental Abilities*. Kindergarten measures included: raw scores on the *Metropolitan REadiness Test* (MRT), and Teacher Judgment Ratings based upon an informal checklist of auditory, visual, motor and language skills. Reading was assessed by the *California Achievement Tests*, Reading (CAT). The correlation coefficient between CAT and MSTOI Total was .33 and the coefficients ranged from .15 to .39 for the five MSTOI subtests. CAT correlated with the three subtests of MRT between .22 and .48. The four Teacher Judgment Ratings correlated between .30 and .45 with CAT.

VAN DONGEN, DRÉ. Strategy for preventing reading difficulties in grade one and discussion of one aspect of it, viz. predicting who are the at-risk children. In Karl Tuunainen & Alain Chiaroni (Eds.) *Full Participation. Proceedings of the Second European Conference on Reading, Joensuu, 2-5 August 1981, Finland*. Joensuu, Finland: University of Joensuu, 1982, 200-215.

Offers preliminary findings on predicting at-risk children in grade one. Data were collected on 600 first grade Dutch pupils in the form of parent questionnaires; infant-school teacher questionnaires; a shortened version of *Raven's Progressive Matrices* and the Rey-test, a test of figure-copying, as measures of intelligence; and four reading readiness tests: visual letter-perception, blending, phonetic analysis, and auditory discrimination. Additionally, twice during the school year an assessment was made to determine decoding, reading comprehension, and spelling achievement. Multiple correlation coefficients between the combination of all predictors and criterion instruments ranged between .62 and .75.

Mann, Virginia A. Longitudinal prediction and prevention of early reading difficulty. In Rosemary F. Bowler (Ed.) *Annals of Dyslexia*, Vol. 34. Baltimore, MD: The Orton Dyslexia Society, 1984, 117-136.

Examines the relation of difficulties in certain spoken language skills and learning to read by reviewing related research and reporting the results of two longitudinal studies currently in progress. Research topics reviewed included perception of spoken words, comprehension of spoken sentences, and phonological awareness. The subjects in one longitudinal study were 62 children tested in kindergarten and again at the end of first grade. The subjects in the second study were 44 children also tested in kindergarten and first grade. The predictor tests in both studies include IQ tests, measures of short-term memory, naming ability, a syntactic test and two tests of phonological sophistication. Reading was assessed with the Woodcock. Poor readers performed significantly more poorly on the word naming, memory and phonological tasks. Suggests procedures for screening children and offers techniques for aiding such children.

Weiner, Max, & Kippel, Gary. The relationship of the California Achievement Test to the Degrees of Reading Power Test. *Educational and Psychological Measurement*, Summer 1984, *44*, 497-500.

Reports on preliminary steps undertaken by a large urban school system to examine the relation between two standardized reading tests, the *California Achievement Test* (CAT) and *Degrees of Reading Power* (DRP). Tests were administered to 28,000 pupils in 1981 and 33,000 in 1982 in grades 3 through 9. Correlation coefficients ranged from .77 in grade three to .86 in grade six.

Tollefson, Nona; Rodriquez, Roberto; & Glazzard, Peggy. Predicting reading achievement for kindergarten boys and girls. *Psychology in the Schools*, January 1985, *22*, 34-39.

Gives the results of two predictive validity studies of the *Kindergarten Teacher Rating Scale* (KTRS). With the KTRS, teachers rate pupils on a five-point scale on each of six performance scales: Reasoning Ability, Speed of Learning, Number and Space Relations, Psychomotor Abilities, Verbal Comprehension, and Verbal Expression. Additionally, pupils' rate of learning (slow, average, or rapid) and the teacher report on the type of content a pupil can read are asked for on the KTRS. In the first study, 137 boys and 136 girls from 11 schools were rated on the KTRS at the end of kindergarten and given Level B of the *Science Research Associates Achievement Series* at the beginning of second grade. In Study 2, data were obtained on 144 boys and 136 girls from 11 elementary schools on the KTRS at the end of kindergarten, on the end of Level 1 *Readiness Test* at the beginning of first grade, and on *Stanford Achievement Test* (SAT) at the end of grade one. Differential predictive validity for boys and girls was not found. The KTRS explained about 30% of the variance in reading achievement at the end of grade one and also at the beginning of grade two.

McKay, Michael F., & Neale, Marie D. Predicting early school achievement in reading and handwriting using major 'error' categories from the Bender-Gestalt Test for young children. *Perceptual and Motor Skills*, April 1985, *60*, 647-654.

Reports a longitudinal study in Australia where errors by category and total errors on the *Bender-Gestalt* were used as school-entry predictors of later achievement in reading and writing in the primary school. Subjects were 195 kindergarten children whose progress was followed from 1970 to 1975. Data were collected at 12-month intervals and included *WISC* Full Scale IQ at 5 yrs. 9 months, the *Neale Analysis of Reading Abilities* in grades 1 and 2, a test of handwriting in grade 2, and the *Bender-Gestalt* at entrance to Grade 1. Stepwise regression analyses explored the relation between Bender scores and later reading and writing achievement. At Grade 1, general intelligence was the best predictor variable, with the Circle for Dots Bender category making a small but significant contribution to the prediction for word knowledge, and total Bender errors contributing to the comprehension prediction. At Grade 2, intelligence was again the best predictor, but the Bender category of Distortion contributed significantly to variance in reading comprehension. Bender category Lines for Dots added substantially to the variance in handwriting performance at the end of Grade 2.

LESIAK, JUDI. The Bender Visual-Motor Gestalt Test: Implications for the diagnosis and prediction of reading achievement. *Journal of School Psychology,* Winter 1984, *22*, 391-405.

Reviews 32 published research studies of the *Bender Visual-Motor Gestalt Test* (BG). The reviews fell into three interrelated areas: 1) the BG as a predictor of reading achievement, 2) the relationship between the BG and reading achievement when they are used as concurrent measures, and 3) the ability of the BG to differentiate between good and poor readers. Concluded that if the goal of the practitioners is to predict reading achievement, a standardized reading readiness test is quite sufficient as subtests of reading readiness tests are better predictors of reading than the BG. Also noted was that the BG, scored using discrete error systems, is of questionable value as part of a diagnostic reading battery attempting to differentiate between good and poor readers.

SIDERS, JANE Z.; SIDERS, JAMES A.; & WALDROP, PHILIP B. Preliminary suggestions for early identification of reading disabilities: Utilizing rate of response. *Reading Improvement*, Spring 1984, *21*, 68-74.

Determines whether measures of rate of response in readiness skills are useful predictors of reading achievement for early identification decisions in remedial and special education placement and compares the data to teacher rating of performance at the end of the first and second year of school. Subjects were 30 children enrolled in two classrooms who were followed for a two-year period. A visual stimulus, random letters of the alphabet, was presented and time taken to make a verbal identification response was recorded. Children were tested in September and in May. Ratings of subjects' need for special education, remedial reading, and their classroom rankings were obtained from first grade teachers and followed up with their second grade teachers. Achievement information from the *Metropolitan Achievement Test* was compiled from cumulative records. Predictive capacity of the rate of response increased with length of time in school. Correlation coefficients decreased with repeated administration of the rate of response measures over time. Fall rate of response had the strongest coefficient with both first and second grade teachers' ratings. A follow-up evaluation of predictive accuracy of the rate of response was completed by handsorting the data into a hit-rate matrix, with the overall hit-rate for the rate of response measure computed at 93%, with a rating for false positives of 17%, and false negatives of 4%.

KARNES, FRANCES A.; WHORTON, JAMES E.; & CURRIE, BILLYE BOB. Correlations between the Wide Range Achievement Test and the California Achievement Test with intellectually gifted students. *Psychological Reports*, February 1984, *54*, 189-190.

Calculates Pearson Product Moment correlation coefficients between scores on the *Wide Range Achievement Test* (WRAT) in reading, arithmetic, and spelling and the total reading, math, and language scores on the *California Achievement Test* (CAT) for a group of gifted children. Subjects were 128 boys and 124 girls in grades 1-6 who scored 120 or above on the WISC-R. The scores on the WRAT (GEs) and the CAT (standard scores) in reading, mathematics, and spelling correlated from .29 to .53 for the sample. WRAT and CAT reading scores showed a coefficient of .46 with one another.

Blachman, Benita A. Are we assessing the linguistic factors critical in early reading? In Elinor Linn Hartwig (Ed.) *Annals of Dyslexia,* Vol. 33 Baltimore, MD: The Orton Dyslexia Society, 1983, 91-109.

Reviews research and conducts an experimental study on predicting beginning reading achievement. Subjects were 34 kindergarten and 34 beginning first graders. All subjects were black and attended all-black, inner-city schools. The average General Cognitive Index (GDI) on the *McCarthy Scales of Children's Abilities* (MSCA) for the kindergarteners was 95 and for the first graders was 90. In addition to the MSCA, each subject was given a test of rapid automized naming (RAN) of colors (RAN Colors) and letters (RAN Letters), a phoneme segmentation test, and a rhyme production test. Also administered to the kindergarteners was the *Metropolitan Readiness Test.* First grade reading ability was assessed with the reading test of the *Wide Range Achievement Test* and the *Gallistel-Ellis Test of Coding Skills.* Selected Step-wise Multiple Regression analyses were reported. In predicting WRAT, MSCA Memory, RAN Letters, RAN Colors and Phoneme Segmentation all contribution significantly to the Multiple R of .861.

Garman, Dorothy. Language development and first-grade reading achievement. *Reading World,* October 1981, *21,* 40-49.

Correlates performance on three readiness tests administered at the end of kindergarten with reading achievement measured in March of first grade. Subjects were 221 lower-middle class suburban students. The kindergarten tests were: 1) a basal test that measured letter matching, auditory discrimination, and phoneme-grapheme relations; 2) an informal test of letter recognition; and 3) the Auditory Closure subtest of the ITPA. Reading achievement was determined by the *Metropolitan Achievement Test.* The basal readiness test correlated .61 with achievement. Closure correlated .47, and letter-naming ability correlated .51.

Battle, James, & Labercane, George. Comparing achievement, ability, with visual memory and visual association. *Reading Horizons,* Winter 1985, *25,* 87-94.

Administers a battery of achievement measures to 87 elementary school children and computes correlation coefficients between those scores and various other measures. Children were in grades 2 through 6 and had been referred to the school psychologist for assessment. The following measures were administered: *Schonell's Graded Word Reading* and *Schonell's Word Spelling Test,* the *Monroe-Sherman Arithmetic Computation Test,* the WISC-R, the *Basic Visual-Motor Association Test* (BVMA), and the visual memory subtest of the *Test of Visual Perceptual Skills.* Pearson correlation coefficients computed between reading scores and BVMA scores were .70 with Form A and .73 with Form B. A coefficient of .45 was found between Schonell reading scores and visual memory subtest scores. BVMA scores also gave significant coefficients with spelling and arithmetic.

Fujioka, Hideki. Relationships between reading ability and intelligence tests. *The Science of Reading,* April 1984, *28,* 17-23.

Studies the relation between reading ability and intelligence using 252 fourth-grade and 221 sixth-grade children in Japan. Correlation coefficients of verbal intelligence subtests with reading ability were reported as high, while coefficients of nonverbal intelligence subtests with reading test scores were relatively low. Three predictive variables were identified using multiple regression analysis to predict reading achievement scores: Antonym, Memory, and Word Completion.

Kerns, Kimberly, & Decker, Sadie N. Multifactorial assessment of reading disability: Identifying the best predictors. *Perceptual and Motor Skills*, June 1985, *60*, 747-753.

Reports on an assessment battery designed to diagnose reading disability. Subjects were 105 reading disabled children, ages 7.8 to 16.9, and their matched controls. All subjects were given a battery of tests including the WISC-R, the *Colorado Expressive Fluency Test* (CEF), the *Colorado Perceptual Speed Test* (CPS), the Educational Testing Service *Identical Pictures Test* (IPT), and the reading and spelling subtests of the *Peabody Individual Achievement Test* (PIAT). Parental self-report data were used to determine whether parents had experienced difficulty in learning to read. On the parent self-reports, 40% of parents of reading disabled and 7% of normal reading children indicated that they had experienced difficulty learning to read. Five variables best discriminated between the groups: the CPS, the letters subtest of the CEF, self-reported family history data, and the Information and Digit Span subtests of the WISC-R.

Oshiro, Yoshitake. Linguistic abilities and reading achievement of elementary school students. *The Science of Reading*, July 1983, *27*, 41-52.

Evaluates the effectiveness of the Semantic and Syntactic Scales of the *Ryudai Test of Linguistic Competence* (RTLC) for predicting reading achievement of 1,309 subjects in grades 1 through 6 in elementary schools in Japan. Performances were analyzed for sex differences and for differences of students of high or low language ability at each grade level. Mean reading scores were higher for subjects of higher language ability at all grade levels and for girls at grades 3, 4, 5, and 6, when scores were adjusted for variations in IQ. Scores on the Semantic and Syntactic scales correlated with reading achievement at all grade levels. The most efficient predictors of reading achievement were the subtests of Definition of Word Meaning (grades 1, 2, 6); Sentence Pattern (grade 3); Anagrams (grade 4); and Word Usage (grade 5).

Valdez, R. Stephen, & Valdez, Cheryl. Detecting predictive bias: The WISC-R vs. achievement scores of Mexican-American and non-minority students. *Learning Disability Quarterly*, Fall 1983, *6*, 440-447.

Evaluates whether the WISC-R predicts the achievement of minority students as well as it predicts the achievement of nonminorities in discrepancy equations for special education services (LD). Subjects were 125 Mexican-American and 125 nonminority subjects in a K-8 school district who were referred for psychoeducational assessment. In each group, over half were classified as LD. Data on WISC-R, *Peabody Individual Achievement Test* and/or the *Wide Range Achievement Test* recognition and math performance were collected for each subject and subjected to four methods of analysis: mean discrepancies in prediction; two forms of regression analysis; and deviation from commonality. Slope stability was also investigated. Results varied with method used. Mean discrepancy predictors suggested a significant underprediction for Mexican-American subjects. Regression lines were underpredictive for verbal IQ and overpredictive for performance IQ. Analysis at the y intercept for regression lines was overpredictive, and slopes varied. An alternative means of detecting predictive bias is proposed.

Fillyaw, Harold. Motivational techniques for the improvement of college reading scores: Basic vocabulary skills and basic comprehension drills. In Delryn R. Fleming (Ed.) *Proceedings of the Fifteenth Annual Conference of the Western College Reading Association*, Vol. 15. Whittier, CA: Western College Reading Association, 1982, 41-45.

Correlates performance on the *Nelson-Denny Reading Test* of 126 college freshmen with certain demographic data. No description of the subjects was provided other than that they were freshmen and that they participated in a program to increase motivation and reading. Among the demographic variables were major, sex, race, birth order, number of siblings, perception of study habits, parent occupation and parent education. Average total score on the achievement test was 10.0. None of the demographic variables correlated significantly with reading achievement, the highest coefficient of correlation being .14.

Adams, Effie Kaye. What research says to the disciplinarian. In George H. McNinch (Ed.) *Reading in the Disciplines.* Second Yearbook of the American Reading Forum. Athens, GA: The American Reading Forum, 1982, 109-111.

Reviews selected research between 1959 and 1981 to assess the relationship of reading comprehension test scores to the Grade Point Average of students majoring in Engineering, Business, History, Sociology, and Math/Science. Of the 13 studies reviewed, 6 showed moderate to high predictive validity of the tests involved.

Lewis, Janice, & Carter-Wells, JoAnn. The relationship of GPA, English placement testing and reading achievement of selected freshmen. In Delryn R. Fleming (Ed.) *Journal of College Reading and Learning*, Vol. 17. Whittier, CA: Western College Reading and Learning Association, 1984, 62-70. .

Evaluates the predictive and concurrent validity of the *English Placement Test* (EPT). The EPT is administered to all students entering the California State University and Colleges system and is used to identify students in need of remedial or developmental help in reading or writing. Data were based upon students (no number reported) taking both the EPT and the *Sequential Test of Educational Progress*-Reading (STEP). High school and college grade point average (GPA) was also obtained. Total scores on the EPT correlated .67 and .66 with STEP Vocabulary and STEP Comprehension, respectively. The EPT correlated less than .2 with both high school and college GPAs. The only significant predictors of college GPA was high school GPA.

Malak, Joseph F., & Hegeman, Johnston N. Using verbal SAT scores to predict Nelson-Denny scores for reading placement. *Journal of Reading*, January 1985, *28*, 301-304.

Notes the relation between two tests and studies the practicality of substituting scores from one test to the other. Prior to enrollment in a public four-year college, 783 entering freshmen completed the *Nelson-Denny Reading Test*, Form C. Their Verbal SAT scores, taken in high school, ranged from 200 to 550; 438 were female and 345 males; 720 were nonminority. The means and standard deviations from the VSAT and the comprehension portion of the Nelson-Denny were computed, and the Pearson's correlation coefficient was calculated to determine if a linear relation existed between the two tests. The correlation coefficient between the two verbal tests was .70, which proved to be statistically significant. The least squares regression equation was subsequently used to find the linear relation between tests. A chart is presented for predicted Nelson-Denny scores based on VSAT scores.

SHEEN, SY-YNG VIOLET, & HEERMAN, CHARLES E. Intercorrelations of measures of reading and writing: Implications for college research on reading and writing. *Perceptual and Motor Skills,* April 1985, *60,* 677-678.

Examines the intercorrelations of scores on college-level reading and writing measures. Three test instruments (*The Nelson-Denny Reading Test,*, a randomly deleted cloze test, and the *Test of Standard Written English*) were administered to 64 students enrolled in a college reading program. Pearson product-moment correlations were computed from the raw scores. The high correlations of the *Test of Standard Written English* with the cloze ($r = .85$) and the Nelson-Denny ($r = .83$) supported previous positive coefficients of correlation between reading and writing measures. The researcher contends that the objective, reading-based format of the writing test may contribute to the strength of its correlation with the two reading measures. The difference in the common variance between it with the cloze ($r^2 = .72$) and with the Nelson-Denny ($r^2 = .69$) was insignificant, while the common variance between the cloze and the Nelson-Denny ($r^2 = .50$) differed markedly from the above, leading the researcher to recommend that cloze tests be used in conjunction with standardized reading tests at the college level.

GEER, CAROLINE. Predicting grade point averages of majors in business, engineering, and science/math through the use of reading comprehension test scores. In George H. McNinch (Ed.) *Reading in the Disciplines.* Second Yearbook of The American Reading Forum. Athens, GA: The American Reading Forum, 1982, 111-112.

Investigates whether scores on a standardized reading test are predictive of the Grade Point Average of Business, Engineering and Science/Math majors. Subjects ($n = 141$) were undergraduates who were administered the *Nelson-Denny Reading Test* in their first semester. Scores from the years 1977 to 1980 were used. There was a significant correlation coefficient between the total score on the standardized test and the Spring 1981 GPA for all majors ($p < .01$).

V-13c Cloze testing

DESANTI, ROGER J., & SULLIVAN, VICKI GALLO. Inter-rater reliability of the cloze reading inventory as a qualitative measure of reading comprehension. *Reading Psychology,* 1984, *5*(304), 203-208.

Explores the nature of potential between-rate subjectivity in rating qualitative cloze-based assessments of reading comprehension. Fifty pupils were randomly selected from a group of 456 subjects who had been involved in standardization studies of the *Cloze Reading Inventory* (CRI). These subjects had been enrolled in classes selected from a large urban public school system, and were representatives of grades 3, 5, 7, 9, and 11. Each of the 50 had taken all four forms of the CRI at appropriate grade levels, thus there were 10 individuals designated to represent each of the five grades. All 200 passages were rated by three of seven raters, rendering a total of 600 passages as a basis for determining inter-rater reliability. The seven raters each possessed a minimum of five years of teaching experience, were from the elementary and secondary teaching levels, and were all graduate students enrolled in a reading specialist degree program. Coefficients were derived from the mean score ratings of the three raters for each of the passages, each of the four interpretive values, and each of grades 3, 5, 7, 9, and 11. Mean inter-rater intraclass reliability coefficients ranged from .89 to .99 for the various grade levels for Traditional Comprehension, Total Comprehension, and Logical Language Usage. For Grammatical Awareness, mean coefficients of the four forms ranged from .56 at grade 9 to .86 at grade 3.

HELFELDT, JOHN P., & HENK, WILLIAM A. Usefulness of conventional vs. Total Random Cued cloze tests as measures of reading comprehension. *Journal of Reading*, May 1985, *28*, 719-725.

Examines the usefulness of the Total Random Cued cloze test (TRC) as an alternative to the conventional, every 5th word cloze test, for assessing reading comprehension of 50 education majors (46 females, 4 males) enrolled in elementary reading methods courses. Half of the group received passages with every fifth word deletion patterns and half received total random deletions with cues indicating the number of letters in the deleted words. Cloze passages were constructed from three passages of the *Iowa Silent Reading Tests* (ISRT). Two weeks later, subjects took the *Nelson-Denny Reading Test* (NDRT), Comprehension, to establish concurrent validity of the cloze tasks and to serve as an interference task before the third phase of the study, the readministration of the ISRT this time with passage intact. Both groups performed similarly on each of the three measures of reading comprehension. Concurrent validity was estimated by correlating each type of cloze test, the NDRT scores, and the ISRT scores. Both cloze measures were significantly correlated with each test measure. TRC coefficients of correlation were higher than conventional cloze coefficients, but differences were not significant. Higher coefficients of reliability were found for the TRC format, but statistically significant differences were not found.

HENK, WILLIAM A., & SELDERS, MARY L. A test of synonymic scoring of cloze passages. *The Reading Teacher*, December 1984, *38*, 282-287.

Assesses whether independent raters score cloze tests similarly when synonymic scoring is allowed. Raters were 27 elementary education majors enrolled in reading methods courses. Raters scored passages from 16 fourth- and 16 sixth-grade pupils, with test protocols randomly selected at each grade level from children scoring in the independent, instructional, and frustration ranges. Raters were given an intact copy, a copy with the words to be underlined deleted, a scoring key, and a packet of three actual children's protocols, with checks by any cloze responses that were not the exact word. Raters scored the protocols by deciding which incorrect responses should have been counted correct. Raters rated a second set of materials, but these materials had not been studied previously. Ratings were compared with the ratings of an individual highly trained in cloze and miscue methodology. The college student raters rated the samples higher than did the expert, with greater differences for the sixth grade sample than for the fourth. Synonymic ratings varied substantially among the raters. Across all passages, there was a 32.8% range in scoring.

GOLDSMITH, JOSEPHINE SPIVACK; NICOLICH, MARK J.; & HAUPT, EDWARD J. A system for the analysis of word and context-based factors in reading. In Jerome A. Niles & Larry A. Harris (Eds.) *New Inquiries in Reading Research and Instruction.* Thirty-first Yearbook of The National Reading Conference. Rochester: The National Reading Conference, 1982, 185-190.

Reports the development and testing of a scale for the coding and analysis of oral reading errors. Two standard passages, a narrative and a science based passage, were adapted for each of grades two, four, and six. Subjects (n = 51), drawn from these grades, were of average reading ability as determined by the *Woodcock Reading Mastery Test*. Each pupil read the two passages for his/her grade, and then completed a cloze comprehension test of 30 deletions. Approximately 2,600 errors were coded according to the developed scale, which consisted of 11 categories each subdivided into smaller categories. Three factor analyses were performed on the errors generated by each individual, the errors generated from a given grade, and all errors from all grades. In each case three factors accounted for 65% to 88% of the variability. The first factor related to semantic and syntactic acceptability, the second to corrections and regressions, and the third to phonemic and graphic similarity. It is concluded that the scale reliably measures some structures in children's strategies as they cope with difficult words.

DE SMEDT, ALBERT. The cloze procedure of Taylor investigation of the reading process by 1800 students (7-18 years). In Karl Tuunainen & Alain Chiaroni (Eds.) *Full Participation. Proceedings of the Second European Conference on Reading, Joensuu, 2-5 August 1981, Finland.* Joensuu, Finland: University of Joensuu, 1982, 342-350.

Presents to 900 primary school boys and 900 secondary school boys in Belgium cloze materials based on compositions written by other boys. In total, 12 compositions were used. The original word was replaced 39% of the time. When analyzed by grammatical function, substantives were most frequently correctly replaced.

WHITE, WILLIAM F., & BIGHAM, WANDA D. Reading comprehension of students on postcloze procedures for textbooks in five disciplines. In George H. McNinch (Ed.) *Reading in the Disciplines.* Second Yearbook of The American Reading Forum. Athens, GA: The American Reading Forum, 1982, 57-58.

Compares college students who were in a developmental reading program (n = 220) with students who were not (n = 402) in terms of their ability to complete a cloze procedure administered after reading the passage on which it was based. Five passages were taken from college textbooks for the disciplines of English, mathematics, American history, sociology, and psychology. Students who were completing a developmental reading course were randomly assigned to each type of text. The comparison groups were beginning classes in four of the disciplines (sociology was unavailable). Subjects read the passages, and then immediately completed a cloze test for the passage with 60 deletions. Students in developmental reading classes had lower average scores on the postcloze tests in the four disciplines examined (significance level not reported).

THOMAS, JUNE. Cloze performance of sixth grade students on fiction, science, and social studies. In George H. McNinch (Ed.) *Reading in the Disciplines.* Second Yearbook of the American Reading Forum. Athens, GA: The American Reading Forum, 1982, 68-69.

Compares the performance of sixth grade students on cloze passages which were fiction, science, and social studies. Subjects (n = 154) were administered a fifth-grade fiction cloze passage as a practice, before completing each of the three passages at their grade level. Order of administration was counterbalanced across the six classrooms. Passages were prepared with every fifth word deleted, providing 30 blanks for each passage. Scores on the social studies passage were higher than those on the science passage ($p < .001$) and the fiction passage ($p < .001$). More students performed at the instruction level of better ($> 39\%$) on the fiction passage than the other two passages.

CHANCE, LARRY. Use cloze encounters of the readability kind for secondary school students. *Journal of Reading*, May 1985, *28*, 690-693.

Gives results of an assignment used in a secondary level reading course in which students were asked to compare a standardized test score with a cloze test score. Some 600 undergraduate and graduate students each administered the *Slosson Oral Reading Test* (SORT) to a junior or senior high student. University students were then required to find a sample of textbook material written at the same readability level as the SORT grade level score obtained and construct and administer a cloze test. The two scores were then compared, and 360 students scored in the instructional level range, 120 in the independent level range, and 120 in the frustration level. University students then rewrote the material in a simplified manner and readministered a cloze test. Higher cloze scores were obtained on the simplified material by students initially scoring in the frustration level but not necessarily by students who originally scored in the instructional and independent levels.

Limtrakarn, Siriporn. Assessment of the cloze reading technique in placement testing. In Byong Won Kim (Ed.) *Reading English in Asia.* The First Yearbook of Literacy and Languages In Asia. Seoul, Korea: Literacy and Languages in Asia, 1984, 79-91.

Examines the cloze reading test procedure to determine if it can be used for the placement of university students in Thailand. Three cloze passages and the *Test of English as a Foreign Language* (TOEFL) were administered to two groups of engineering students in two universities in Thailand (n = 99 and 88). There was one each of a scientific, nonscientific and literary cloze passage, each with 50 deletions. The students from one university scored significantly higher on the TOEFL, lower on the scientific cloze passage, and higher on the nonscientific passage. There was no significant difference on the literary cloze passage. The alpha reliability of the cloze tasks was .513.

Bensoussan, Marsha, & Ramraz, Rachel. Testing EFL reading comprehension using a multiple-choice rational cloze. *The Modern Language Journal,* Autumn 1984, *68,* 230-239.

Reports the construction and use of a multiple-choice rational cloze test (in which the test designer selects the words to be omitted and provides alternative responses) as compared with more conventional measures for testing the reading comprehension of EFL students. The test was developed to improve the English section of the psychometric entrance examination at Haifa and Tel Aviv. Each deletion took the place of a word or phrase of not more than three words. Attention was directed toward deleting words that could be pivotal to comprehension at both the micro-level (word, phrase, or clause) and macro-level (sentence, paragraph, or whole text). Half of the blanks represented content words and half function words. Four experiments were conducted using four separate test batteries which compared test items and scores of the fill-in test with those of its multiple-choice counterpart using item analysis. Number of items per line of text, difficulty levels of items, extent and function of test questions, correlations between scores, and test reliability were examined. For Experiment 1, 485 first-year students taking the advance reading course in English at Haifa University took one of three English tests, consisting of four subtests: one fill-in test (rational cloze) and three multiple-choice measures. Kuder-Richardson reliability ranged from .71 to .83. For Experiment 2, 1487 applicants to Haifa University were given either a multiple-choice or a fill-in format of the same test. Four forms were used. Results indicated greater differences among the forms than between the multiple-choice and fill-in formats. Analysis of item difficulty revealed that the micro-level items were easier than macro-level items. For Experiment 3, a multiple-choice and a fill-in format test were administered to 7,499 applicants for the first year and 7,114 second year applicants to Haifa and Tel Aviv Universities. Pearson product-moment coefficients between total fill-in and multiple-choice scores were .75 for the first year, .79 for the second. For Experiment 4, performances on three fill-in subtests were compared with those on another test battery, which included sentence comprehension, vocabulary substitution, and multiple-choice comprehension subtests. Both the multiple-choice/traditional cloze battery and one fill-in (rational cloze) test were administered to 354 Haifa applicants. In general the subtests did not correlate highly with each other, although all correlations obtained were significant. The highest correlation (.64) was found between scores on the sentence completion subtest and the multiple-choice text. The lowest set of correlations was between vocabulary and multiple-choice text. The authors suggest that the fill-in test may be testing a different construct.

V-13d Test uses and purposes

Gipps, Caroline; Steadman, Stephen; Blackstone, Tessa; & Stierer, Barry. *Testing Children: Standardized Testing in Local Education Authorities and Schools.* London: Heinemann Educational Books, 1983.

Presents findings of a large scale investigation into the uses and purposes of testing in Britain. Data were collected from multiple sources: questionnaires sent to Local Education Authorities (LEAs), in-depth interviews with senior staff in 33 LEAs, on-site case studies of five LEAs representing different types of testing programs, interview surveys in 40 secondary and 80 primary schools in 20 LEAs, and a study conducted in three primary schools to determine how reading is assessed in classrooms. Questionnaire responses from 91 LEAs in England and Wales revealed that 79% had some standardized testing program with reading being tested more than any other skill area. The most widely used reading test was reported to be the *Young's Group Reading Test.* The authors point out that the Young's as well as some other instruments used have standardization problems. Monitoring and screening were purposes frequently given for testing programs. In these two instances, as well as for the purpose of resource allocation, testing is being used as a management tool. One-third of headteachers reported that they had not been given any reasons for the testing by their LEAs. Amount of school initiated testing and the ages at which it occurs varied markedly from school to school and did not appear to be influenced markedly by LEA testing. Record-keeping was found to be the major use of test scores. In the case of studies of reading test usage in classrooms, variations were observed in procedures for administration and marking of the standardized reading test used in the LEA survey. Additionally, considerable stress was experienced by seven-year-olds relative to the testing program. The study concludes with a discussion of issues in testing and some concrete suggestions and questions for LEAs relative to the testing program.

Singer, Harry, & Dreher, Mariam Jean. Preference for testing and reporting of test results in basic skills: Acquisition vs. ability to gain information from text, content-bound and content-free. In Jerome A. Niles & Larry A. Harris. (Eds.) *New Inquiries in Reading Research and Instruction.* Thirty-first Yearbook of The National Reading Conference. Rochester: The National Reading Conference, 1982, 209-214.

Investigates educators' preferences for four ways of reporting reading test results. The results of a second grade child's reading test performance was presented in four forms. One form (peer comparison-content free) was a graph of results on a standardized test at the end of first and second grade. The second form added to the graph the result of a retest, at the end of second grade, on the first grade test (self comparison-content free). The third and fourth forms were the same graphs presented with the most difficult paragraphs the student could read on each test (content bound). Subjects (n = 44) were college students who had an average of about 5 years teaching experience. They ranked the four categories from most to least preferred. The form most preferred was self comparison-content bound, and the form least preferred was peer comparison-content free.

Smith, Ellen R. Community college reading tests: A statewide survey. *Journal of Reading,* October 1984, *28,* 52-54.

Surveys 28 community college reading instructors in the state of Washington to find out names of reading assessment and diagnostic instruments utilized, the purposes of assessment, and comments on the effectiveness of the assessment. The most widely used tools were the *Nelson-Denny Reading Test* and various informal reading inventories. However, no assessment device surfaced as the best screening device. Selection seemed to be based upon an instructor's knowledge of availability and background along with the purpose of the assessment. Although there seemed to be extensive testing, it appeared to be conducted haphazardly.

V-13e Test reliability and validity

Smith, Lawrence L., & Johns, Jerry L. A study of the effects of out-of-level testing with poor readers in the intermediate grades. *Reading Psychology,* 1984, *5*(1-2), 139-143.

Ascertains whether there are significant differences in pupils' derived scores on an on-level and an out-of-level test. From a total of 92 fourth- and fifth-grade pupils enrolled in Chapter 1 reading programs in three states, 47 were identified as having scores below a recommended criterion level on the *Gates-MacGinitie Reading Tests,* Level D. These pupils then were given Level C of the Gates-MacGinitie. The following derived scores for the vocabulary and comprehension subtests were then compared: normal curve equivalents, grade equivalents, and scaled scores. No statistical differences were found between the two sets of scores.

Manzo, Anthony, & Casale, Ula. Description and factor analysis of a broad spectrum battery for assessing 'progress toward reading maturity.' In George H. McNinch (Ed.) *Reading Research to Reading Practice.* Third Yearbook of The American Reading Forum. Athens, GA: The American Reading Forum, 1983, 100-105.

Reports the preliminary development and norming of a battery of tests for the assessment of language and reading maturity (ALARM). The battery consists of tests relating to word recognition, vocabulary, analogies, syntactic complexity, modified cloze, reading comprehension, speed and accuracy in content area material, abstract verbal reasoning, elaborative thinking, social-emotional factors, teaching/learning range, cultural compatibility, and critical judgments. Sample items are given from each test, along with the means, standard deviations and reliability estimates based on a sample of sixth and ninth graders (n = 579). A factor analysis revealed four factors: developmental reading, major bracing elements, complementary elements, and trace elements, each of which is described in detail.

Carver, Ronald P. Measuring absolute amounts of reading comprehension using the rauding rescaling procedure. *Journal of Reading Behavior,* 1985, *17*(1), 29-53.

Describes a procedure for rescaling objective measures of comprehension to reflect amounts of accuracy of comprehension on an absolute scale. The procedure employed , based on rauding theory, interrelates reading ability, passage difficulty, reading time, and passage comprehension. Included are the theoretical rationale for the rescaling procedure, description of the rescaling procedure with passage administered to 102 college students at rates ranging from 62.5 to 100,000 standard length words per minute, and student performance on measures of understanding judgments, missing verbs, best titles, and sentence-halves. Data from these four assessments were rescaled using the rauding rescaling procedure. The researcher concludes that rauding theory represents a method for measuring reading comprehension on a ratio scale with absolute rather than relative units.

Johns, Jerry L. Equivalence of Forms 1 and 3, Level E, Gates-MacGinitie Reading Tests. *Journal of Reading,* October 1984, *28,* 48-51.

Compares scores received on Forms 1 and 3 of the *Gates-MacGinitie Reading Test,* Level E, by 69 seventh graders and 57 eighth graders. Only the results of the comprehension subtest were used in this study. Two-tailed *t* tests were used to compare pupils' mean raw scores and five derived scores: stanines (S), normal curve equivalents (NCE), percentile ranks (PR), grade equivalents (GE), and extended scale scores (ESS). For the seventh graders, there were no significant differences in raw or derived scores on the two test forms. In all instances, however, their mean scores on Form 1 were lower than their mean scores on Form 3. For the 57 eighth graders, all scores were lower on Form 1. The differences in eighth graders' raw scores and various derived scores were statistically significant ($p < .05$) with the exception of the grade equivalent scores ($p < .07$). However, there was a four month difference in the grade equivalent scores.

SLEE, FRANK. How useful is the Daniels and Diack Test One? *Remedial Education*, May 1985, *20*, 64-67.

Compares Test One of the Daniels and Diack *Standard Reading Tests* with the Word Reading Test from the *British Ability Scales* (BAS) to determine the reliability, validity, and usefulness of Test One. Test One is a British test designed to assess knowledge of sound-symbol relationships in the context of simple questions. Both Test One and the BAS were administered to 120 backward readers by teachers attending in-service courses at Leeds Polytechnic School of Education. Because Test One did not appear to discriminate adequately beyond a raw score of 110, the 40 subjects scoring above that mark were dropped from the investigation, leaving 80 subjects (male = 47; females = 33) whose average age equaled 10 years, 11 months. The items of the test were found to be arranged in order of approximate statistical difficulty. The Kuder-Richardson reliability was above .9. The validity coefficient was .93, based on correlation with raw scores on the BAS. However, non-linear relationships were found between raw scores and between reading ages from the two tests. Scatter diagrams indicated that the reading ages on Test One fell below the reading ages on the BAS up to a reading age of 7½, but from that point on the Test One ages were higher. Scores on Test One clustered into three clear groups, contrasting with the seven groups claimed by the test's authors. The researchers recommend that the Test One only functions adequately between reading ages 6.0 and 8.0. A description of the word identification skills of children in each group is provided, as well as a revised set of test norms.

WATKINS, ERNEST O., & WIEBE, MICHAEL J. Factorial validity of the Stanford Achievement Test for first-grade children. *Educational and Psychological Measurement*, Winter 1984, *44*, 951-954.

Obtains evidence regarding the construct validity of the *Stanford Achievement Test* (SAT). A final sample of 393 first graders were administered the SAT. Grade equivalent scores for the eight subtests were then subjected to analysis. The vocabulary subtest correlated .52 with Reading A and .51 with Reading B. Factor analysis of SAT scores revealed only one factor emerging, a general achievement score.

TILLINGHAST, JR., B.S.; MORROW, JOHN E.; & UHLIG, GEORGE E. Validity of the Peabody Picture Vocabulary Test-Revised using California Achievement Tests as criteria. *Educational and Psychological Research*, Summer 1984, *4*, 147-152.

Presents validity coefficients for the *Peabody Picture Vocabulary Test*-Revised (PPVT-R), using the scores of fourth, fifth, and sixth graders on the *California Achievement Test* (CAT) as the criterion. A stratified random sample of 116 Mobile, Alabama elementary students were administered both Form L and Form M of the PPVT-R in counterbalanced order. Form C of the CAT was administered two months later. Pearson product-moment coefficients were computed from the grade-equivalent scores of the achievement test and from the raw scores of the Peabody. Criterion-related validity coefficients for the PPVT-R ranged from -.06 to .68. Correlation coefficients were computed separately for each grade level. For fourth grade, coefficients ranged from -.06 to .51. For fifth grade, coefficients ranged from

.22 to .53. For sixth grade, the range was from .05 to .68. Of the 24 coefficients of correlation, 13 were statistically significant. At all grade levels, only Language and Reading subtests had consistently significant correlations with the PPVT-R.

Morrison, James A., & Michael, William B. Validity of measures reflecting visual discrimination and linguistic constructs for a sample of second-grade Hispanic children receiving reading instruction in Spanish. *Educational and Psychological Measurement*, Summer 1984, *44*, 333-351.

Evaluates the concurrent and discriminant validity of *La Prueba de Analisis Auditivo* (PAA), a Spanish auditory perception test. A sample of 114 second-grade Hispanic pupils who had been classified as limited English-speaking and Spanish dominant, who were receiving instruction in Spanish reading, and who had not made a transition into English reading were assessed on measures representing intelligence, verbal and nonverbal visual discrimination, and three linguistic constructs (phonemic segmentation, verbal encoding, and visual-verbal encoding). Spanish reading achievement was assessed on a standardized criterion test (*CTBS Español*). Of the 20 variables in the study, two were classificatory (chronological age and sex); 14 were predictors that were categorized in terms of the constructs hypothesized for them (intelligence, measured by Raven's *Coloured Progressive Matrices*, five measures of verbal visual discrimination, five measures of nonverbal visual discrimination, a phonemic segmentation test, a test of verbal encoding, and a visual-verbal encoding test); and four were criterion measures, including three subtests and a total score from the *CTBS Español*, Level C. Results indicated that phonemic segmentation was the most valid predictor of each criterion measure. Visual discrimination (either verbal or nonverbal) did not appear to be a highly valid predictor of second-grade Spanish reading achievement, and thus a perceptual deficit hypothesis was not supported. Measures assessing Encoding and Visual-Auditory Learning did not appear to be highly valid predictors of second-grade Spanish reading achievement. The researchers concluded that measures of phonemic segmentation, intelligence, visual discrimination of Spanish letters and words, and verbal encoding may provide an educationally useful test battery for the prediction of second-grade Spanish reading ability.

Powers, Stephen, & Jones, Patricia B. Factorial stability of the California Achievement Test. *Educational and Psychological Research*, Winter 1984, *4*, 221-224.

Examines the stability of achievement factors across two grade levels for blacks, Hispanics, whites, and for males and females. All subtests of the *California Achievement Test* were administered to 3,743 fifth grade pupils and 3,718 seventh graders in a large urban Southwest school district. The reduced intercorrelation coefficients of the subtest scores for each group and at each grade level were separately submitted to factor analysis. For each race and gender combination, a single principal factor emerged from the subtest intercorrelation matrix at each grade level. All factor loadings were greater than or equal to .67, appearing to represent a general achievement factor. Coefficients of congruence for each pair of groups across grades were larger than .99, indicating that the factor patterns of each group were stable from fifth to seventh grades for different race-sex combinations. A general achievement factor emerged repeatedly for black males, black females, Hispanic males, Hispanic females, white males, and white females.

Pierson, Dorothy. Toward a refinement in the use of the Kennedy-Halinski Reading Attitude Inventory. *Reading World*, May 1984, *23*, 364-374.

Examines the construct validity and internal consistency reliability of the *Kennedy-Halinski Reading Attitude Inventory*. The Inventory was given to 311 10th graders in a suburban high school. Content validity was examined through a review of the literature and a comparison with other reading attitude scales for the secondary student. Construct validity was investigated by generating a 56 x 56 item intercorrelation matrix for the response data and by using a standard principal components analysis followed by an oblique rotation. A principal components analysis and obliquimax transformation was performed and a 10-factor solution generated. Ten items were deleted. Factors remaining included: personal appeal, benefits, comprehension, personal assistance, rate, complexities, social awareness, conceptual difficulty, and mental growth. Two factors had alpha reliability coefficients of .80 or above (personal appeal and benefits). Six of the factors had alpha reliability coefficients that ranged from .65 to .80.

HAWK, JANE W.; ROBERSON, TERRY G.; & LEY, TERRY C. The factor structure of the Mikulecky Behavioral Reading Attitude Measure. *Educational and Psychological Measurement*, Winter 1984, *44*, 1059-1065.

Investigates the factorial validity of the *Mikulecky Behavioral Reading Attitude Measure* (MBRAM). The instrument was administered to 411 seventh- and eighth-graders, all enrolled in special programs for gifted and talented children. A correlation matrix among the 20 items was established. Pearson intercorrelation coefficients among the items were then analyzed through a series of factor analyses to determine the underlying structure of the items. Results indicated that the MBRAM is a unidimensional measure with the one general dimension of attitude accounting for 34.1% of the total variance. The construct validity of the instrument was questioned.

BELCHER, VIVIAN. Readiness tests: What do they really assess? In Linda B. Gambrell (Ed.) *Reading: Process, Instruction and Assessment*. College Park, MD: The State of Maryland International Reading Association, 1984, 72-91.

Discusses seven of the major skills assessed in reading readiness tests and reviews selected research that supports the importance of each of these skills. The seven skills are: numerical concepts, visual discrimination, auditory discrimination, auditory and visual discrimination, knowledge of the alphabet, motor skills, and vocabulary/language skills. Includes an extensive list of test references and an extensive bibliography of readiness studies.

ROYER, JAMES M.; LYNCH, DOUGLAS J.; HAMBLETON, RONALD K.; & BULGARELLI, CHRISTOPHER. Using the sentence verification technique to assess the comprehension of technical text as a function of subject matter expertise. *American Educational Research Journal*, Winter 1984, *21*, 839-869.

Conducts four experiments concerned with the construct validity of the Sentence Verification Technique (SVT) as a measure of reading comprehension. The SVT consists of the following four types of test sentences based on each original sentence in a passage: original, paraphrase, meaning change, and distractor. The assumption underlying the technique is that subjects with greater expertise in an area will comprehend technical text in their area of expertise better than readers who have less background in the area. In Experiment 1, 23 graduate students in psychology, 41 undergraduate psychology majors, and 105 undergraduates in an introductory psychology course were given three psychology and three nonpsychology passages to read and the accompanying SVT tests. In Experiment 2, text comprehension of psychology and nonpsychology text was assessed at the beginning and end of the semester for 82 undergraduate psychology majors. Experiment 3 used 107 nonmajor psychology undergraduate students and 49 psychology majors and manipulated the text structure characteristics of sentences in passages to determine whether the SVT was sensitive to this variation. Experiment 4 utilized 68 undergraduates to determine whether the SVT was a measure of sentence comprehension or a measure of text comprehension. As a whole, the experiments supported the use of the SVT as a measure of reading comprehension.

CRISPIN, LISA; HAMILTON, WIN; & TRICKEY, G. The relevance of visual sequential memory to reading. *British Journal of Educational Psychology*, February 1984, *54*, 24-30.

Compares the merits of three different approaches to the assessment of visual sequential memory: the existing Barking Reading Project (BRP) Visual Sequential Memory test; the *ITPA* Visual Sequential Memory Test; and an experimental test format for new items for the BRP. The existing test items tested sequences of lower case letters, the ITPA tested sequences of abstract designs, and the experimental format tested sequences involving a repeated letter differing in the design and/or type face. Eight items were included in the experimental format, with sequence increasing from three letters to six letters. Nineteen children were given the *Carver WRA* test and the three visual sequential memory tests. None of the intercorrelation coefficients of the three tests was significant, and only the BRP visual sequential test correlated significantly with reading age. Children had more difficulty with the experimental test than with the existing BRP or ITPA.

V-14 Instructional time

THURLOW, MARTHA; GRADEN, JANET; YSSELDYKE, JAMES E.; & ALGOZZINE, ROBERT. Student reading during reading class: The lost activity in reading instruction. *Journal of Educational Research*, May-June 1984, *77*, 267-272.

Seeks to document and evaluate time spent in actual reading by second-grade pupils with a range of reading skills. Analyzed were time allocations for specific teaching structures, tasks, and teacher variables, as well as the time of pupils engaged in a host of reading activities. The subjects, 35 second-grade pupils from 10 elementary schools and 26 different classrooms were observed during regularly scheduled reading periods. The Code for Instructional Structure and Student Academic Response (CISSAR), an observational system, permitted the focusing of observations on the behavior of one target subject and allowed researchers to record 53 events within six areas: activity, task, teaching structure, teacher location, teacher activity, and pupil response. Data on all events and in all categories were collected at 10-second intervals for the 240 minutes (two days) of observed class time. Of the scheduled reading period of 120 minutes, 81 minutes were allocated to reading. Most of the reading time, 66 minutes, was spent in small group instruction. Worksheets were used for the greatest average amount of time (27 minutes) with basal readers used an average of 20 minutes each day. The average amount of time pupils spent in silent reading was 16.71 minutes with a range from 36 seconds to 26.5 minutes. Average amount of time for the group in oral reading was 2.9 minutes, but there was great variability among pupils with a range from 0 minutes to 8 minutes.

ALVERMANN, DONNA E. Using textbook reading assignments to promote classroom discussion. *The Clearing House*, October 1984, *58*, 70-73.

Observes, over a period of eight weeks, 74 social studies lessons in 10 different classrooms to note discussions of reading assignments. Of the lessons observed, 20 were conducted by four teachers of seventh grade, 32 by three eighth-grade instructors, and 22 by three different ninth grade teachers. Total observation time was 3,487 minutes. Overall, teachers allotted very little of this total to classroom discussion of reading assignments (11%); the activity consuming the largest amount of time was spent by pupils' listening (38%). Exercises of a recitation nature took some 29%. Social talking (activity not directed to tasks at hand) took 8%, almost equal to on-task or discussion-type talking.

BULLOCK, TERRY; HESSE, KARL D.; & SALINGER, EDITH. A description of instruction in the reading of assigned materials in eighth grade social studies and language arts classrooms. In George H. McNinch (Ed.) *Reading in the Disciplines.* Second Yearbook of The American Reading Forum. Athens, GA: The American Reading Forum, 1982, 4-6.

Investigates the kind, quantity, and duration of content area reading activities in eighth grade language arts and social studies classrooms. Thirteen teachers in four schools were observed for 59.1 hours. An instrument developed by the researchers was used by six observers. Among other findings was that 51% of class time was spent on reading activities. Content area reading instruction was observed 5% of the time, with one school accounting for more than half of this. Teachers with five years or less teaching experience provided twice the amount of reading instruction as more experienced teachers.

HESSE, KARL D.; BULLOCK, TERRY; & VILLALOVOZ, CAROLE. A qualitative analysis of reading instruction in low level language arts and reading classes in one high school. In George H. McNinch (Ed.) *Reading in the Disciplines.* Second Yearbook of The American Reading Forum. Athens, GA: The American Reading Forum, 1982, 6-8.

Compares the nature and quantity of reading activities in high school reading and language arts classrooms. Five language arts teachers and two reading teachers from one high school were observed for three 50-minute class periods. Two observers used an instrument previously designed by one of the researchers and a colleague. Although there were considerable differences in time spent in the various categories and across classrooms, the total time spent in reading was 21% in language arts classes and 93% in reading classes.

NEILSEN, ALLAN R.; RENNIE, BARBARA J.; & CONNELL, ARLENE M. Allocation of instructional time to reading comprehension and study skills in intermediate grade social studies classrooms. In Jerome A. Niles & Larry A. Harris (Ed.) *New Inquiries in Reading Research and Instruction.* Thirty-first Yearbook of The National Reading Conference. Rochester: The National Reading Conference, 1982, 81-84.

Investigates the proportion of time devoted to reading comprehension and study skills during social studies instruction. Social studies teachers (n = 8) from grades four through six were observed during three successive lessons. Teacher behaviors were recorded in 20 categories on a checklist of 15-second intervals. Categories of behavior were based on previous research, including comprehension and study skills text-based instruction and nontext-based instruction. Inter-observer reliability was .94. An average of 22.28% of teachers' class time was devoted to comprehension related activities, with 15.03% being help with assignments. In this latter category teacher variation was considerable, varying from 0% to 66%. Only one teacher devoted any time to direct instruction (4.48%) and only three teachers prepared students for reading assignments (1.12% to 3.86%). Time spent on study skills related activities varied from 0% to 9.32%. A total of 54.17% of instruction was text-based.

YSSELDYKE, JAMES E.; THURLOW, MARTHA L.; MECKLENBURG, CAROL; & GRADEN, JANET. Opportunity to learn for regular and special education students during reading instruction. *Remedial and Special Education,* January/February 1984, *5*(1), 29-37.

Reports observations of 17 third- and fourth-grade children receiving special education services (LD) and 17 regular education (RE) children for the purpose of documenting the nature of the instructional ecology (task, structure, teacher location, and teacher activity) and pupil responses during those portions of the school day allocated to reading. Twelve observers purposely selected so as not to have a background in education were trained to use the *Code for Instructional Structure and Student Academic Response*. The observation system provided for focus and systematic recording for one target pupil in six event areas: activity, task, teaching structure, teacher location, teacher activity, and student response. Records were made every 10 seconds for two full school days, with the exception of breaks and nonacademic time. Total amounts of time each pupil spent in the activity coded reading were analyzed by each of the other five event areas. Results indicated that the average amount of time allocated to reading was not significantly different between RE and LD children (65.7 versus 60.8 minutes, respectively). Neither was there a significant difference in time allocated to various tasks during reading. Both groups spent the majority of the reading period with reading texts, followed by worksheets, workbooks, and other media. The majority of time for both RE and LD children were spent in small group structures. However, the LD pupils received an average of 14 minutes more time in individual structures than did the RE children. For both groups, the most frequent teacher activity was that of making no active response to the observed students. The LD pupils received significantly more approval from the teacher. The most frequent teacher location for both groups was time spent among the pupils; teachers of the RE pupils were in front of the class during reading significantly more than teachers of LD pupils. For both groups, the greatest portion of time was spent making passive responses such as waiting or looking at the teacher, followed by time spent looking around. Within the domain of active academic responses, both groups spent the greatest portion of time reading silently; LD children spent significantly more time reading aloud than did RE children.

V-15 Technology and reading instruction

Cooper, Margaret. Televised books and their effects on children's reading. *The Use of English*, Spring 1984, *35*, 41-49.

Describes interview-type sessions of conversations with a group of 12 eight- to nine-year-olds (six boys and six girls) all described as competent readers, in a study that examined the influence of serialized, televised adaptations of books. Five questions underpinned the discussions: What is there in a televised serial that impels children to go on to the book? How far do they get with this teleprompted reading? Do children discover differences between the two versions? Does one presentation prove more enjoyable than the other? To what extent do children articulate general differences between the viewing and reading experiences? Eight of the children chose to secure the book following viewing or while the program unfolded over its episodes. For two children there seemed little point in reading a story already watched; two others, who expressed early interest in the book, three months after the serial were still too busy doing other things. The authors speculated that the majority might have wished to take up the book version because they were curious about possible differences and perhaps they had a desire to relive an enjoyable experience. Most children detected no differences between the TV script and the book. Only a minority read for pleasure. Whether a child made it to the printed word depended on access. Two of the viewers had noticed the book in the school library, two in the school bookshop, two in a local store, while two inquired if there was a book version of the serial that one might buy.

Shannon, Patrick, & Fernie, David E. Print and television: Children's use of the medium is the message. *The Elementary School Journal*, May 1985, *85*, 663-672.

Reviews research contradicting the popular sentiment concerning the superiority of literacy to televiewing as the two affect logical thought, abstraction, and metacognition. Argues that print and television can be complementary tools in the development of cognitive skills. Suggestions for improving children's abilities to use media to grow in these skills are given.

KAMIL, MICHAEL L. Technology and reading: A review of research and instruction. In Jerome A. Niles & Larry A. Harris (Eds.) *New Inquiries in Reading Research and Instruction.* Thirty-first Yearbook of The National Reading Conference. Rochester: The National Reading Conference, 1982, 251-261.

Examines the use of computers in reading research and instruction. Areas examined include technology and reading research, technology and reading instruction, computers and literacy, reading and CAI, and computers and writing. Selected research on reading and computer assisted instruction is reviewed.

MIDGETT, JEANICE; THOMPSON, RICHARD; & WALTERS, MYRNA J. An investigation of the effectiveness of CAI learning using a tutorial model for teaching interpretive reading comprehension skills to fifth graders. *Florida Reading Quarterly,* March 1985, *21*(3), 21-23.

Assesses the effectiveness of a computer instruction (CAI) reading tutorial program with fifth graders. The program consisted of five discs and subjects spent 15 to 20 minutes twice weekly at the computer over a five-month period. Fifty-four pupils from five fifth grade classrooms were randomly divided into CAI and control groups. While CAI pupils worked with the computer in addition to class instruction, the control group received only regular classroom instruction until the posttests were collected; then those subjects also had access to the computer. Reading comprehension and vocabulary subtest scores yielded from pre- and posttesting on the *Comprehensive Tests of Basic Skills,* Level 2 were recorded. Comparisons of the means of both groups revealed that pupils achieved equally well in area of vocabulary and comprehension.

RADENCICH, MARGUERITE C. From Dick and Jane to Tron? *Reading World,* December 1984, *24*(2), 1-3.

Describes the amount and difficulty of print encountered on videogame screens. One game, *Tron,* was described in detail as an example of a game which is probably too complex to follow without a careful reading of instruction. Directions, consisting of 336 words, are flashed on the screen for 140 seconds, with up to 46 words at a time. Given that screens are exposed for 7.5 seconds, readers must read up to 368 words a minute if the material is to be absorbed. The possibility of using video games to increase reading speed and to improve skimming and scanning skills of already good but slow readers is discussed.

BOETTCHER, JUDITH V. Computer-based education: Classroom application and benefits for the learning disabled student. In Elinor Linn Hartwig (Ed.) *Annals of Dyslexia,* Vol. 33. Baltimore, MD: The Orton Dyslexia Society, 1983, 203-219.

Describes the design and content of a computer-based reading program, the *Reading Comprehension System,* a commercially prepared program for learning disabled (LD) children in grades four to nine. Also presents the results of two pilot studies using that program. The program contains 240 short passages and presents five comprehension skills areas for diagnosis and practice: semantic, syntactic, relationships, inference, and interpretation. Sample exercises are shown. The 28 grades four to six LD pupils who participated in this program for two months averaged a one year's gain on the vocabulary and comprehension subtests of the *California Achievement Test.* The second pilot study employed the program with 22 LD children, ages 7-13, for a full year. Children worked one-half to two hours weekly with the program. Pre-post standardized test data for these children, while not presented, are reported as not showing any appreciable gain. Problems encountered with the second pilot study and recommendations based on findings are presented.

LETON, DONALD A., & PERTZ, DOROTHY A. The use of computer-automated reading in reading instruction. *Psychology in the Schools*, October 1984, *21*, 512-515.

Describes an exploratory study planned to evaluate the effectiveness of automated reading instruction in a remedial program. Ten first and 10 second graders were randomly assigned to an experimental and control group. All were enrolled in a compensatory education program. Pre- and posttests of word recognition, phrase reading, and reading comprehension were employed. The *Dolch Word List* was administered for an independent assessment of vocabulary development. Experimental instruction included 10 lessons in periods of 35 minutes each. Subjects in the control groups were taught by the same teacher for 10 lesson sessions, using the same reading booklets. Computer-automated reading instruction was included in the experimental but not in the control condition. At first grade level, adjusted posttest mean scores revealed nonsignificant differences between groups. At grade two, significant differences favoring the five automated instruction children were found for word recognition and phrase reading but not for comprehension.

V-16 Characteristics of effective schools

HOFFMAN, JAMES V., & RUTHERFORD, WILLIAM L. Effective reading programs: A critical review of outlier studies. *Reading Research Quarterly*, Fall 1984, *20*, 79-92.

Summarizes the findings from eight research studies which used an "outlier" paradigm to determine what is known about effective reading programs. Outlier schools were those which have been highly successful in pupil achievement, even though extra-institutional factors would have predicted failures instead of successes. Three basic dimensions of effective reading programs surfaced repeatedly: 1) program characteristics of explicitness, continuity, flexibility, and stability; 2) leadership behaviors of goal setting, knowledge, participation and facilitation, monitoring, and evaluation; and 3) psychological conditions of attribution, expectation, order, commitment, and community. Questions about this body of literature, and the way the results of the studies have been used, are raised. Further research directions are included.

HALLINGER, PHILIP, & MURPHY, JOSEPH. Characteristics of highly effective elementary school reading programs. *Educational Leadership*, February 1985, *42*(5), 39-42.

Reports initial findings from a study of two California schools considered instructionally effective in that they exceeded reading test score expectations based on the socioeconomic background of pupils. Data reported are based on interviews with teachers and principals and classroom observations of 20 to 40 minutes. Other information collected included various school documents and surveys of pupils, parents, teachers, and principals. Common practices found included the following: a daily minimum of 50 minutes of teacher-directed reading instruction for each pupil; a single basal reading series supplemented with literature books and skill building materials; a wide supply of books at various difficulty levels and easy access to them; logs maintained by children of books read; reading homework assigned by all teachers every weeknight; detailed quarterly progress reports to parents; and instructional leadership in the reading program provided by either the principal or staff members.

SINGER, HARRY. Phonics first, second, or not at all. In Malcolm P. Douglass (Ed.) *Claremont Reading Conference Forty-Seventh Yearbook*. Claremont, CA: Claremont Reading Conference, 1983, 205-217.

Reviews selected research to demonstrate the point that learning to read requires competence in four reading subsystems: graphophonemic, morphemic, semantic, and syntactic. Reports research that concludes that children's developing reading strategies are influenced by classroom reading instruction. Concludes that a good program: 1) includes both responses to printed words and use of language skills, 2) teaches children to integrate them, 3) shifts in emphasis from word recognition to reasoning-in-reading, and 4) has students practice with a variety of reading materials.

SINGER, HARRY; MCNEIL, JOHN D.; & FURSE, LORY L. Relationship between curriculum scope and reading achievement in elementary schools. *The Reading Teacher*, March 1984, *37*, 608-612.

Hypothesizes that elementary schools which are comparable in ethnicity and located in the same geographic area would differ and that those with lower reading scores very likely would be the ones stressing basic skills only, while higher achieving schools would have a curriculum providing for instruction in basic skills and an emphasis on science, social studies, and fine arts. Six pairs of ethnically comparable elementary schools were identified which differed in curricular scope, one having relatively high and the other having relatively low interpretive comprehension scores on the district's *Survey of Essential Skills*. Principals were interviewed to gain an assessment of a school's reading program (general characteristics, organization, materials used, methods of instruction, and other descriptive details). Teachers in the 12 schools involved were asked to fill out questionnaires inquiring into their estimates as to whether their programs possessed a narrow scope or a broader scope. Results supported the hypothesis that there was a significant relation between a school's scores on inferential reading comprehension and the scope of its curriculum.

RUPLEY, WILLIAM H.; BLAIR, TIMOTHY R.; & WISE, BETH S. Specification of promising teacher effectiveness variables for reading instruction. In Jerome A. Niles & Larry A. Harris (Eds.) *New Inquiries in Reading Research and Instruction*. Thirty-first Yearbook of The National Reading Conference. Rochester: The National Reading Conference, 1982, 232-236.

Describes selected reading instructional strategies used by effective, average, and less effective elementary school teachers. Teacher's success status was determined by comparing pupils' end of year reading achievement (on the *SRA Achievement Test*) with their predicted end of year reading achievement. Over a period of six years, at two-year intervals, all third- and sixth-grade teachers in a school district were identified as high, average, or low effective teachers of reading. Eleven third-grade teachers from each of the three categories, and all sixth-grade teachers (n = 31), were administered a questionnaire designed to gather information about their classroom reading instruction. Basal series were used by 73% of high success third-grade teachers, 45% average, and 45% low. At sixth grade the respective percentages were 75%, 64%, and 44%. At third grade, high success teachers had an average of 2.4 reading groups, and low success teachers an average of 5.0 groups. At sixth grade, the figures were 2.1 and 3.3 respectively. Skill sequence charts were used by more successful teachers at third grade, who also were more likely to keep weekly records. Other data are also reported.

Lofton, Glenda. Building a comprehensive reading program. In George H. McNinch (Ed.) *Reading Research to Reading Practice*. Third Yearbook of The American Reading Forum. Athens, GA: The American Reading Forum, 1983, 33-38.

Reports the results of Louisiana's Special Plan to Upgrade Reading (SPUR), a statewide effort to build quality reading programs in 64 school districts. The plan involved: 1) determining needs, 2) establishing goals, 3) specifying objectives, 4) setting priorities, 5) selecting activities, 6) establishing time lines, and 7) implementing, evaluating, adjusting, and maintaining the plan, at the levels of the system, the school, the teacher, and the student. School systems appointed task forces to assess needs and develop plans for program improvement. The research background to the development of a comprehensive reading program is described. Some results of an evaluation are reported, including an improvement in student achievement in participating schools as compared to nonparticipating schools, above national average performance in grades two, three, and five on the *Prescriptive Reading Inventory*, high time on-task in these grades, and positive feedback from administrators and teachers involved in the project.

Rowan, Brian, & Denk, Charles E. Management succession, school socioeconomic context, and basic skills achievement. *American Educational Research Journal*, Fall 1984, *21*, 517-537.

Assesses the effects of a change in principals on school-level basic skills achievement using data secured from 149 schools. A longitudinal regression model of the effects of management succession on academic outcomes was employed, controlling for prior achievement and the composition of a building's student body. Unit composition was gauged by employing two variables: 1) the proportion of those attending who received Aid to Families with Dependent Children (AFDC), and 2) the proportion of children in the sixth grade with limited (LES) and non-English speaking (NES) backgrounds. In addition to pupil composition data, this study required information on the specific principal a building had for each year of a six-year time span. Results for reading and mathematics achievement are reported. For both reading and math, a strong nonlinear relation was found between AFDC and achievement. The analysis showed that a change in principals did not affect basic skills achievement until the second year of a newcomer's tenure. The effects of administrator change differed depending on the socioeconomic composition of the unit. In buildings with low proportions of pupils who received AFDC, the effects of succession on achievement were negative, but as the percentage of AFDC pupils in a unit increased beyond 20%, succession effects on achievement turned positive. The findings revealed that changes in building leadership can affect reading and math achievement, but that leadership effects develop slowly, and are conditioned by the socioeconomic makeup of the district.

VI. Reading of atypical learners

VI-1 Visually impaired

Barth, John L. Incised grids: Enhancing the readability of tangible graphs for the blind. *Human Factors*, February 1984, *26*, 61-70.

Investigates the effects of raised and incised grid backgrounds on the graph reading abilities of blind pupils. Subjects (n = 24) were totally blind pupils from grades four through seven whose primary mode of reading was braille. Each subject performed four experimental tasks in three conditions: raised grid; incised grid; no grid (control). The tasks involved: 1) tracking a line; 2) the location of minimum and maximum points; 3) the location of point symbols; and 4) the determination of coordinate values of a graph point. The time taken for each task was measured. For task 1, the incised grid was better than the raised grid and no grid better than the other two conditions ($p < .01$). The raised grid also caused a greater number of errors ($p < .001$). For task 2, the raised grid was worse than the other two conditions ($p < .01$) and caused more errors ($p < .02$). The raised grid also impaired performance on task 3 ($p < .01$), but performance on task 4 was similar for incised and raised grids, which were better than no grid ($p < .05$).

MILLAR, SUSANNA. Is there a "best hand" for Braille? *Cortex,* March 1984, *20,* 75-87.

Reports two experiments concerned with lateral differences in braille tasks with blind readers of differing reading ability. Subjects ($n = 20$), who were of average and above intelligence and aged up to 13 years, were divided into four reading proficiency groups on a reading test of uncontractable words. Subjects were tested on six behavioral laterality tasks. Three subjects showed as many left as right responses, and the remainder were predominantly right sided. The children were also classified as adequate or retarded readers on the basis of normative reading tests. In the first experiment, speed and accuracy of letter discrimination and recognition were tested. Each subject was presented with six lists of eight letter pairs, three to each hand, and required to identify them as the same or different. For letter recognition six lists of ten letters were presented, three to each hand. Groups with higher word reading scores made fewer errors ($p < .001$), and letter discrimination was more accurate than letter naming for groups at lower word reading levels ($p < .001$). Better word readers were faster on both tasks ($p < .01$), although the discrimination task took longer than the recognition task ($p < .001$). There was a small advantage for the right hand on the letter naming task ($p < .05$). Adequate readers were faster using their right hands, while retarded readers were faster with their left hands ($p < .05$). In the second experiment the same subjects were presented with six lists of ten uncontractable three letter words, to left, right, and both hands. Speed and accuracy were measured. Two handed reading was faster and more accurate for all groups than reading with either hand alone (both $p < .025$).

KRISCHER, C.C.; STEIN-ARSIC, M.; MEISSEN, R.; & ZIHL, J. Visual performance and reading capacity of partially sighted persons in a rehabilitation center. *American Journal of Optometry and Psysiological Optics,* January 1985, *62,* 52-58.

Studies the influence of visual acuity on reading performance for 178 partially sighted individuals from a rehabilitation center in Germany. Three groups of partially sighted subjects were identified: 1) 25% who required tactile reading aids, 2) 50% who required high-magnification electronic reading aids, and 3) 25% who could read normal text by using optical magnifying devices. A linear relation was demonstrated between visual acuity and reading speed for subjects with visual acuity values below 15% of the normal value. Reading performance was related to the nature of the underlying ocular problem.

TOKUDA, KATSUMI, & SATO, YASUMASA. Speed of Braille reading in the blind. *The Science of Reading,* October 1982, *26,* 131-136.

Investigates the speed of braille reading by Japanese blind students. Subjects ($n = 196$), who were in grades 10 to 15, were administered the *Braille Speed-Reading Test.* Speed of braille reading did not develop significantly by grade level, nor were there any sex differences. Accuracy was stable across grades at approximately 90%. Rate of braille reading was about four times that of reading printed materials by nonhandicapped students.

TOKUDA, KATSUMI; KUROKAWA, TETSUU; & KADEKAWA, SHIGEMITSU. Readability of computer-translated braille. *The Science of Reading*, July 1984, *28*, 41-51.

Reading materials which had been transcribed by a computer into embossed braille were divided into four sets. In the first set the mistranslations of Kanji and the errors in positioning blank spaces between Kana were corrected. In the second set the errors in positioning blank spaces between Kana were corrected and the mistranslations of Kanji were retained. In the third set the mistranslations of Kanji were corrected and the errors in positioning blank spaces between Kana were retained. In the fourth set no corrections were made.

VI-2 Hearing impaired

MORARIU, JANIS A., & BRUNING, ROGER H. Cognitive processing by prelingual deaf students as a function of language context. *Journal of Educational Psychology*, October 1984, *76*, 844-856.

Reports two experiments on the influence of language mode (print or sign) and syntax (English or American Sign Language-ASL) on the recall, preference, and comprehension of teenage deaf students. In the first experiment deaf (n = 12) and hearing (n = 12) subjects, who were of average intelligence and aged between 16 and 19, read 12 one-paragraph stories. Six of the stories were printed in English, and six in ASL (but in normal orthography). Students were tested individually. The reading of each passage was timed and, after reading a set of six syntactically mixed passages, subjects were asked to recall as much of each passage as they could. They then rated each passage for readability and preference on five point scales. Hearing subjects took longer to read and recalled more propositions from the ASL passages than did the deaf students (both $p < .01$). Recall of English passages did not differ for the groups, and deaf subjects read both types of syntax equally quickly. Both groups preferred the English passages, and rated them easier to read. Deaf subjects rated ASL passages as easier to read than hearing subjects (all $p < .01$). In the second experiment 30 prelingually deaf high school students were presented with the same passages. In addition to printed versions, signed videotape versions in English and ASL were prepared. Recall, preference, and comprehensibility were assessed as in the first experiment. More propositions were recalled from ASL passages than English passages in both print and sign modes ($p < .05$). Printed ASL required more reading time than printed English ($p < .05$). Subjects did not prefer a particular mode or syntax. Comprehensibility ratings also did not differ.

CAVEDON, ADELE; CORNOLDI, CESARE; & DEBENI, ROSSANA. Structural vs. semantic coding in the reading of isolated words by deaf children. *Visible Language*, Autumn 1984, *18*, 372-381.

Reports two Italian experiments concerning the reading processes of deaf children. Subjects for the first experiment were deaf children (n = 17) aged between 12 and 15 and hearing children (n = 17) aged between 11 and 13, matched for sex, socioeconomic status, and grade. Subjects were presented with 120 words on cards at 5-second intervals. The words consisted of 20 basic words for each of which there was a repetition, a word visually similar, a word strongly associated with it, and a synonym. The task was to indicate when a word had already appeared. Incorrect identifications were counted for each category of words. Structural (especially phonetic) similarities had a greater effect on deaf children, while semantic similarities had a greater effect on hearing children ($p < .01$). A similar task was involved in the second experiment with 11-12-year-old deaf children (n = 16), 13-14-year-old deaf children (n = 16), and hearing children (n = 16), matched for ability with the older deaf group, and for age with the younger deaf group. Hearing children again made more errors in the synonymic category, while deaf children tended to make more errors in the visual and phonetic categories (p <.001).

DOWALIBY, FRED J.; ENDERS, MARILYN; SCHRAGLE, PETER; & VERLINDE, RUTH. A comparison of captioned, classroom, and prose instruction for hearing-impaired learners. *American Annals of the Deaf*, September 1984, *129*, 375-377.

Investigates the effects of three delivery systems with low versus high content structure in terms of the immediate learning performance of profoundly deaf students. Subjects (n = 203) were taught the basic principles of photography with either captioned videotape, connected prose, or a teacher in a classroom. High structure conditions employed the original captioned script from the videotape, while in low structure conditions advance organizers, transitions, and summaries were deleted. After being presented with the information in one of the six conditions, subjects completed a 19-item factual knowledge test. Scores were subjected to an analysis of covariance, with reading comprehension as measured by the *California Reading Test* as the covariate. Students in the prose condition performed better than those in the other two conditions (p <.01), and high content structure yielded greater learning performance than low content structure for the classroom delivery method (p <.01).

WILBUR, RONNIE; GOODHART, WENDY, & MONTANDON, ELIZABETH. Comprehension of nine syntactic structures by hearing-impaired students. *Volta Review*, December 1983, *85*, 328-345.

Investigates the comprehension of various syntactic structures by hearing-impaired subjects at reading levels one to eight. Subjects (n = 187) ranged in age from 7 to 23 years. Reading levels were determined by either the *Stanford Achievement Test* or the *Metropolitan Reading Achievement Test*. A total of 125 items were constructed to test 9 syntactic structures (why-questions, conditionals, nonlocative prepositions, indefinite pronouns, quantifiers, modal verbs, elliptical constructions, reciprocal pronouns, and comparative constructions). Items were presented in comic book form, with multiple-choice format, and group administered. For the total test, reliability was determined to be .98. There was a significant improvement across reading levels, with reading level eight performing better than six and seven, six and seven better than four and five, four and five better than three, three better than two, and two better than one (all p <.05). Differences are also reported for each structure, allowing structures to be ordered in terms of difficulty.

WOLK, STEVE, & ALLEN, THOMAS E. A 5-year follow-up of reading-comprehension achievement of hearing-impaired students in special education programs. *The Journal of Special Education*, Summer 1984, *18*, 161-176.

Investigates the relative importance for reading achievement growth of the most salient handicapping characteristics of a hearing-impaired population compared with basic student demographic characteristics. Subjects were hearing-impaired students (n = 1664) enrolled in special education programs across the United States. The Special Edition for Hearing-Impaired Students of the *Stanford Achievement Test* was administered in 1974 and again in 1979. Growth in reading was approximately one-third that of the average hearing student. Also older students outperformed younger students (p <.001); females outperformed males (p <.01); whites outperformed other racial groups (p <.001); students with less hearing loss outperformed those with more severe losses (p <.001); and students with additional handicaps did less well than those without (p <.01). Other significant findings are also reported.

HANSON, VICKI L.; LIBERMAN, ISABELLE Y.; & SHANKWEILER, DONALD. Linguistic coding by deaf children in relation to beginning reading success. *Journal of Experimental Child Psychology*, April 1984, *37*, 378-393.

Investigates short-term memory coding as it relates to the beginning reading success of prelingually, profoundly deaf children. Subjects (n = 16) were from kindergarten through third grade and were classified as good or poor readers on the basis of their scores on the *Woodcock Reading Mastery Test* and the *Stanford Achievement Test*. Each child was rated by a speech pathologist on a scale of 1 to 5 concerning the intelligibility of his/her speech. Four consonants were selected as being phonetically similar, four as dactylically (manually) similar, four as visually similar, and four as being dissimilar along the three dimensions being studied. Each letter was typed in upper case and presented on slides for one second with a one-second interval. Four slides were presented on each trial and children were asked to remember the letters in order and write them in an answer book. Responses were scored in two ways: order-strict, where the letter was correct if in the correct serial position; and order-free, where the letter was correct if it appeared in that trial. More errors occurred in order-strict than order-free scoring (p <.001), but there were no significant interactions involving this factor. Performance of poor readers did not vary as a function of the stimulus set, but for good readers performance on the phonetically and dactylically similar sets was greater than on the control set (p <.05). Analysis of the type of errors made indicated that poor readers responded with a letter related to the target set but poor readers responded randomly. Results are taken as evidence of the use of linguistic codes by the good readers.

LASASSO, CAROL, & DAVEY, BETH. An examination of hearing-impaired readers' test-taking abilities on reinspection tasks. *Volta Review*, October/November 1983, *85*, 279-284.

Investigates the effect of being permitted to reinspect the text on the reading comprehension performance of hearing-impaired students in multiple-choice and free-response conditions. Subjects (n = 50) were profoundly deaf students who scored between 5.0 and 7.9 on the reading comprehension subtest of the *Stanford Achievement Test* (Hearing Impaired version). Eighteen passages of about 200-words in length were written at a 5th grade readability level. For each passage an eight-item multiple-choice and an eight-item free-response test were constructed. Subjects were administered three passages under each of four conditions: multiple-choice with look-back; multiple-choice with no look-back; free-response with look-back; free-response with no look-back. Subjects were blocked according to age: Young (mean = 13.2 years); Middle (mean = 16.5 years); and Old (mean = 17.8 years). An analysis of covariance with SAT scores as covariates revealed that scores for multiple-choice items were higher than for free-response items (p <.001), and that look-back scores were higher than no look-back scores (p <.001). The ability to look-back improved scores under the free-response condition more than the multiple-choice condition (p <.01). Post hoc analysis indicated that students were using a visual matching strategy which involved matching a key word in the question with one in the text and selecting a word or group of words in direct vertical or horizontal alignment as the answer.

GROVE, CARL, & RODDA, MICHAEL. Receptive communication skills of hearing-impaired students: A comparison of four methods of communication. *American Annals of the Deaf*, September 1984, *129*, 378-385.

Compares the effectiveness of four methods of administering the *Test of Communication Skills* (TCS) to 113 deaf subjects, ages 9 to 21. Subjects were randomly assigned to each of the following methods of communication: reading, manual, Total Communication (simultaneous oral and manual signs), and oral. The TCS consists of 120 pictorial multiple-choice items and was administered by 22 testers, all experienced in dealing with deaf children. Reading was found to be the most effective method of communication across all age groups. When rate of information transmission was taken into account, the superiority of reading over the other methods was even greater.

WOLK, STEVE, & SCHILDROTH, ARTHUR. Consistency of an associational strategy used by hearing-impaired students. *Journal of Research in Reading*, September 1984, *7*, 135-142.

Compares the response patterns of hearing-impaired and hearing subjects on selected items of a standardized reading achievement test. The subjects ($n = 1900$), who were hearing-impaired students, were administered the Primary 2 test level of the *Stanford Achievement Test*. Responses on six selected reading comprehension items were compared with the responses of the original norming population ($n = 4102$). The correct response was selected by 17% of the hearing-impaired and 48% of the hearing children. The percentage of children selecting the correct answer, a word/idea association distractor, and the other distractors taken together are reported for each population for each item. For hearing-impaired students, the probability of selecting the word/association distractor was found to be significantly higher than that of selecting either the correct answer or the other distractors ($p < .01$). Hearing students selected the correct answer more frequently than the word/association distractor ($p < .01$), and the latter choice less frequently than the other distractors combined ($p < .01$).

METZ-LUTZ, MARIE-NOELLE, & DAHL, EVELYNE. Analysis of word comprehension in a case of pure word deafness. *Brain and Language*, September 1984, *23*, 13-25.

Reports a case study of a 24-year-old female suffering from pure word deafness due to a left temporal infarct. Subject was unable to repeat nonsense words and produced frequent semantic paraphasias in real-word repetition tasks. She could identify foreign language presented auditorially and discriminate intonation contours. Spontaneous speech, reading, and writing were almost normal. Words and nonwords were read aloud almost without error. Results are interpreted as suggesting that auditory verbal material may be processed in the right hemisphere, and the condition is considered as the mirror syndrome of deep dyslexia.

VI-3 Mentally retarded

CARLTON, MARY B.; LITTON, FREDDIE W.; & ZINKGRAF, STEPHEN A. The effects of an intraclass peer tutoring program on the sight-word recognition ability of students who are mildly mentally retarded. *Mental Retardation*, April 1985, *23*, 74-78.

Investigates the effects of an intraclass peer tutoring program on the reading ability of mildly mentally retarded pupils aged 11 to 13 years. Subjects ($n = 136$) were members of 12 classes, which were randomly assigned to experimental and control groups. The groups did not differ in reading level as determined by placement tests from a basal reading series. The experimental group was equally divided into tutors and tutees on the basis of performance on a word recognition test. Tutors taught 250 words using a flash-card drill for 20 minutes daily over a 6-week period. The control group engaged in normal language arts activities. All subjects were pre- and posttested on the *Gates-MacGinitie Reading Test*. Tutors and tutees had higher gain scores than the control group on both the vocabulary and comprehension subtests ($p < .05$).

SINGH, NIRBHAY N., & SINGH, JUDY. Antecedent control of oral reading errors and self-corrections by mentally retarded children. *Journal of Applied Behavior Analysis*, Spring 1984, *17*, 111-119.

Investigates the effects of previewing texts on the oral reading errors of four mentally retarded children. Subjects were between 14 and 17 years old with reading ages ranging from 5 to 9-8 years as measured by the *Burt Word Reading Test*. The materials used in the study were from reading series familiar to the students. Children read three 100-word texts in three conditions: previewing the target text, previewing an unrelated text, and without a preview. A baseline was established through the reading of a new 100-word passage. Previewing consisted of the teacher and child talking about the story through looking at the pictures and becoming familiar with new words and phrases. In each of the three conditions, oral reading errors and self-corrections were noted. Results are reported for each subject. Previewing greatly reduced the number of oral reading errors for all students and increased the number of self-corrections. During remediation using the previewing procedure the pattern of results was maintained.

BIGLER, JOAN KELLETT. Increasing inferential comprehension scores of intermediate-age mildly retarded students using two direct teaching procedures. *Education and Training of the Mentally Retarded*, April 1984, *19*, 132-140.

Investigates the effectiveness of two direct instruction techniques for increasing eight mildly retarded subjects' skills in drawing conclusions and predicting outcomes. Techniques taught were: 1) underlining key details, and 2) modeling and practice in thinking out loud. Subjects ranged in age from 9 to 12 years and had an instructional reading level of 2.0 and 3.0. Instructional conditions occurred over a period of six sessions of about 15-20 minutes each and were preceded by a baseline period. Inferential questions requiring predictions or conclusions were asked daily, both after reading a story and after listening to a story. Answers were judged against the researcher created Inference Rating Scale. Performance of all subjects improved, but differences were not statistically significant. Instruction in one area generalized to the other.

BOS, CANDACE S., & TIERNEY, ROBERT J. Inferential reading abilities of mildly retarded and nonretarded students. *American Journal of Mental Deficiency*, July 1984, *89*, 75-82.

Assesses the inferential reading operations of 16 mildly retarded junior-high students (CA = 12.5 to 14.75) and 16 nonretarded third-grade pupils (CA = 8.0 to 9.3), as both groups read and recalled a narrative and an expository passage. IQs for the mildly retarded ranged from 52 to 71. While both groups differed in age, reading performance was similar on three screening measures: *Stanford Achievement Test*, Primary Level II, recognition of passage words, and background knowledge assessment for the passages to be read. Subjects read each passage, worked an unrelated task, orally recalled, and answered inference questions. Recalls were analyzed using a system of classifying and qualitatively categorizing each inference. There were no significant differences on total inferred information in the recalls generated for either passage. However, on the expository passage, inferences were qualitatively less plausible for the mildly retarded group than for the nonretarded group. Qualitative differences were also noted for inferences generated from direct probing; mildly retarded subjects scored significantly lower.

Browder, Diane M.; Hines, Carol; McCarthy, Laurie Jo; & Fees, Jill. A treatment package for increasing sight word recognition for use in daily living skills. *Education and Training of the Mentally Retarded*, October 1984, *19*, 191-200.

Investigates the effectiveness of instructions in booklets designed to aid mentally retarded adults acquire daily living skills. Subjects (n = 8) were mostly confined to wheelchairs and knew no more than five sight words. They did not perform food preparation, telephone, or laundry skills independently. Booklets were written to provide sight word instruction in each of these skills. The instruction took place in the appropriate facility (e.g., kitchen, laundry room) on an average of four times a week. Session length was determined by subject pace. Results are reported for word list mastery and skills mastery. All subjects mastered the word lists and all but one acquired the daily living skills.

Goldstein, Deborah, & Kossack, Sharon. The application of memory research to reading instructional practice. In George H. McNinch (Ed.) *Reading Research to Reading Practice*. Third Yearbook of The American Reading Forum. Athens, GA: The American Reading Forum, 1983, 64-70.

Reviews selected memory deficit research concerning the mentally retarded in five areas and develops a diagnostic-prescriptive approach to sight vocabulary instruction. Research and recommended procedures are examined in terms of assessment and remediation for: 1) locus of control; 2) selective attention to task relevant cues; 3) selectively organizing materials at input; 4) recall processes; and 5) transferring information.

Whorton, James E., & Wilson, R. Mack. Comparison of discrepancies in reading by black and white educable mentally retarded students. *Psychological Reports*, April 1983, *52*, 488-490.

Compares the reading test scores of mentally retarded subjects with their expected achievement levels and examines discrepancies for black and white students. Subjects (n = 302) were the educable mentally retarded population in grades 1 through 12 of one school district. Scores on the WISC-R were used to compute an expected reading achievement level for each subject. Reading achievement was measured with the *Wide Range Achievement Test*, and a reading discrepancy score calculated. There were no differences between the reading discrepancy scores of black and white subjects.

Cobrinik, Leonard. The performance of hyperlexic children on an "incomplete words" task. *Neuropsychologia*, 1982, *20*, 569-577.

Seeks to determine whether hyperlexic children surpass normals in a task involving incomplete words, i.e., words in which letter-identifying cues were made ambiguous through deletion. Hyperlexia denotes unusual word-reading ability in otherwise cognitively impaired children. nine boys, ages 9-8 to 13-2, were identified as hyperlexic. Stanford-Binet Mental Ages on five of these boys ranged from 4-11 to 6-8; IQs ranged from 42-70; *Wide Range Achievement Test* (WRAT) scores showed a grade equivalent range from 3.8 to 6.3. All were in special programs for the emotionally disturbed. Most of the boys were reading prior to age five. A control group of 10 boys, similar in age, showed WRAT scores of 5.7-12.9. Subjects were first primed with a list of 14 whole words and then presented with the same words in incomplete form. Incomplete words were in two paired lists. Hyperlexics had a significantly larger number of correct responses to incomplete words than controls. Analysis of responses suggested that a configurational approach underlies success on the task.

VI-4 Neurologically impaired/brain damaged

CIUFFREDA, KENNETH J.; KENYON, ROBERT V.; & STARK, LAWRENCE. Saccadic intrusions contributing to reading disability: A case report. *American Journal of Optometry & Physiological Optics*, March 1983, *60*, 242-249.

Takes horizontal eye movement recordings during reading and nonreading tasks on one 27-year-old female with probable neurological involvement. The patient complained that letters and words seemed to jump (oscillopsia) and that her eyes tripped over each other as she read. Frontal headaches followed brief periods of reading. Saccadic intrusions were found during all tracking tasks and usually occurred concurrent with or in proximity to periods of visual disturbance. Several therapeutic measures were instituted and met with varying degrees of success.

WINKELMAN, MARC D., & GLASSON, CHLOE C. Unilateral right cerebral representation of reading in a familial left-hander. *Neuropsychologia*, 1984, *22*(5), 621-626.

Reports a case study of a 68-year-old woman with an infarct in the right occipital lobe and splenium of the corpus callosum. The patient was mixed left-handed. She lost the ability to read aloud or comprehend printed material but the ability to write was preserved. The authors write that the alexia resulting from a single, right hemisphere lesion indicated that reading was completely lateralized to the right hemisphere. It is further argued that in some natural left-handed individuals, language functions can be unilaterally represented in the right hemisphere.

ROELTGEN, DAVID P., & HEILMAN, KENNETH M. Lexical agraphia: Further support for the two-system hypothesis of linguistic agraphia. *Brain: A Journal of Neurology*, September 1984, *107*, 811-827.

Analyzes and compares the reading and spelling abilities of 4 patients with lexical agraphia, 4 patients with phonological agraphia, 4 age-matched subjects with focal brain lesions, and 4 age-matched subjects without brain injury. Subjects were asked to spell regular and irregular words, ambiguous words, nouns and function words, and homophonic words. They read nonwords, regular and irregular words, ambiguous words, and norms and function words. Findings supported the hypothesis that there were two dissociable spelling systems and that these are disrupted by focal lesions in separate but distinct brain regions. Also evidence was found to support the hypothesis that individual systems subserve the four processes of phonological spelling, phonological reading, lexical spelling, and lexical reading.

MASTER, DINSHAW R., & LISHMAN, W. ALWYN. Seizures, dyslexia, and dysgraphia of psychogenic origin. *Archives of Neurology*, August 1984, *41*, 889-890.

Reports a case study of dyslexia and dysgraphia as the sole manifestation of a psychogenic disorder. The patient was a 20-year-old female undergraduate who complained of inability to read and write. Her complaints began about a year after the onset of seizures at age 16. The seizures went into remission for about two years, although her reading and writing continued to deteriorate to the point where she could neither read nor write even the simplest words. General language skills showed no impairment with normal fluency of speech, comprehension of spoken language, and ability to calculate. No abnormalities were revealed from a physical examination. Resting and sleep EEG recordings were normal. Psychological testing revealed that she did not have the type of reading disability described in patients with any known form of acquired dyslexia. The patient remained insistent on an organic causation for her disability, although the diagnosis attributed it to a hysterical conversion reaction. Treatment was directed toward retraining, and the girl read lists of 10 words, one at a time, on a microcomputer. The lists formed the basis for a core vocabulary, and she progressed into reading increasingly difficult children's books. Within 10 weeks, her reading and writing were normal and remained so 18 months later.

KEAN, MARY-LOUISE. The question of linguistic anomaly in developmental dyslexia. In Rosemary F. Bowler (Ed.) *Annals of Dyslexia,* Vol. 34. Baltimore, MD: The Orton Dyslexia Society, 1984, 137-151.

Reports some data collected in two preliminary studies of linguistic capacity in dyslexics. The subjects in the first study were six adult dyslexics, six undergraduates, six volunteer adults, six 10- and 11-year-old children with no reading problems and six brain damaged adults. Their task was to judge anomalous sentences and answer certain probe questions regarding the sentences. The scores of the brain damaged adults were significantly lower than the scores of the other groups, and the other four groups did not significantly differ. The second preliminary study included five of the six brain damaged adults from the first study and 60 undergraduates. The task was to indicate when, in an orally presented sentence, a target word was heard. The dependent variable was reaction time, but the procedures of the experiment were not explained. Brain damaged subjects demonstrated significantly longer reaction times to recognize noun markers. Concludes that there may be a linguistic anomaly in dyslexia consequent to anomalies in brain organization.

BENSON, D. FRANK. Alexia and the neural basis of reading. In Rosemary F. Bowler (Ed.) *Annals of Dyslexia,* Vol. 34. Baltimore, MD: The Orton Dyslexia Society, 1984, 3-13.

Traces a brief history of the syndrome of acquired reading disturbance (alexia) and describes four main types of alexia: posterior alexia, central alexia, anterior alexia, and deep alexia. Describes the clinical features that differentiate the types of alexia. Also discusses briefly the right hemisphere reading of alexics and the effects of hemispheric brain damage on the reading of Oriental languages.

DORMAN, CASEY. Classification of reading ability in a case of congenital brain damage. *Neuropsychologia,* 1985, *23*(3), 393-402.

Presents a case study of the reading and spelling abilities of an 18-year-old spastic quadriparetic cerebral palsied female. She was administered the *WAIS*, the *Peabody Individual Achievement Test*, the *Wide Range Achievement Test*, the *Woodcock Reading Mastery Test*, and a battery of neuropsychological tests. Her oral reading of 200 single words was also subjected to an analysis in terms of semantic and phonetic errors. The subject's reading disability is compared to that found in both developmental and acquired dyslexia.

GOLD, PATRICIA COHEN, & FREEMAN, EVELYN AMARAL. Remediation of alexia: A case study. *Reading Psychology,* 1984, *5*(1-2), 65-73.

Presents a case study of a 35-year-old female suffering from left and right hemiplegia, aphasia, and alexia. Subject was individually pre- and posttested on the *Peabody Picture Vocabulary Test*, the *Woodcock Reading Mastery Test*, the *Wide Range Achievement Test*, and for auditory comprehension. Individual instruction was given using a directed listening-language experience approach for 1½ hours twice a week over a 12-week period. Gains were observed in language development and auditory comprehension.

Grossi, Dario; Fragassi, Nina A.; Orsini, Arturo; De Falco, Fabrizio A.; & Sepe, Ornella. Residual reading capability in a patient with alexia without agraphia. *Brain and Language*, November 1984, *23*, 337-348.

Presents a case study of a 64-year-old patient with pure alexia due to an ischemic lesion of the occipital temporal region. Subject could match written words but not read them. He was able to spell words out letter by letter, but immediate memory span for graphemes was defective. The patient was able to match auditory stimuli to written words and objects and pictures to written words. Results are taken to support the hypothesis that the left hyppocampal structure is necessary for phonological reading.

Caramazza, Alfonso; Berndt, Rita Sloan; Basili, Annamaria G.; & Koller, Jerry J. Syntactic processing deficits in aphasia. *Cortex*, October 1981, *17*, 333-348.

Explores the nature of the impairment that underlies the agrammatic production and asyntactic comprehension of Broca aphasics. Language comprehension (sentence-picture matching task), story completion, oral reading, and sentence anagoram tasks were administered to four adult aphasic patients: one severely impaired Broca's aphasic, one mildly impaired Broca's aphasic, one conduction aphasic, and one mildly impaired Wernicke's aphasic. The two Broca's aphasic patients demonstrated impaired ability to use syntactic information in sentence comprehension and sentence construction tasks. The conduction aphasic had impaired sentence comprehension, but no other difficulties. The mildly impaired Wernicke's aphasic demonstrated no syntactic difficulties. These results were interpreted as supporting the hypothesis that Broca's aphasia results from an impairment to the syntactic component of the language processing system.

Caramazza, Alfonso, & Berndt, Rita Sloan. A psycholinguistic assessment of adult aphasia. In Sheldon Rosenberg (Ed.) *Handbook of Applied Psycholinguistics: Major Thrusts of Research and Theory.* Hillsdale, NJ: Lawrence Erlbaum Associates, 1982, 477-535.

Describes and reviews research on the major syndromes of asphasia. The major syndromes described are Broca's, Wernicke's, conduction, anomic, transcortical motor, and transcortical sensory. Reviews the phonological and syntactic characteristics and research of each of the classifications of aphasia. Also reviews extensive literature on the lexicon of aphasics. Concludes with a discussion of the importance of aphasia research.

Regard, Marianne; Landis, Theodor; & Hess, Klaus. Preserved stenography reading in a patient with pure alexia. *Archives of Neurology*, April 1985, *42*, 400-402.

Relates a case study of an 84-year-old retired architect who had had cerebral metastases and suffered from pure alexia. Writing and reading were tested in handwriting and in stenography as the patient was a proficient stenographer. Writing of single letters and words and sentences of different length on dictation was normal. However, he copied single letters, words and nonsense words, and sentences very slowly, and he produced a few errors caused by visual similarity. Spelling was unimpaired. He wrote a stenography system in two languages and a shorthand system with no change in accuracy and speed. Reading of print and cursive handwriting was severely impaired, although reading of stenography was normal. There was no comprehension for sentences he read, but comprehension of words spelled to him remained intact. The authors contend that the dissociation between reading normal print and stenography is indicative of the presence of two primarily separate reading systems, each taking care of different aspects of visually presented language.

Coltheart, Max; Masterson, Jacqueline; Byng, Sally; Prior, Margot; & Riddoch, Jane. Surface dyslexia. *Quarterly Journal of Experimental Psychology*, August 1983, *35A*, 469-495.

Describes two cases of surface dyslexia, one a developmental dyslexic, and the other, an acquired dyslexic. In the former, dyslexic difficulties were suspected as early as age seven. Her Full Scale WISC IQ was 104. The latter, a male, suffered brain damage in the right frontal area as a result of a motorcycle accident. The symptoms shown by both included: regular words were more likely to be read aloud correctly than irregular words, incorrect readings of irregular words were often regularizations, homophonex were often confused in comprehension, and spelling was poor with most errors being phonologically correct. Offered was a theoretical interpretation of surface dyslexia within the framework of the logogen model. Defects within the input logogen system, and in communication from that system to semantics, were hypothesized as responsible for most surface dyslexia symptoms.

Bradley, V.A., & Thomson, M.E. Residual ability to use grapheme-phoneme conversion rules in phonological dyslexia. *Brain and Language*, July 1984, *22*, 292-302.

Details a case of a 36-year-old male with acquired phonological dyslexia and investigates whether any ability to use phoneme-grapheme conversion rules remain. The patient was tested using a reading by anology technique. He was presented with a list of real words and then asked to remove one letter and pronounce the subsequent nonword. He read 20 nonwords correctly out of 35, thereby demonstrating the ability to use some grapheme-phoneme conversion rules.

VI-5 Other atypical learners

Brutten, G.J.; Bakker, K.; Janssen, P.; & van der Meulen, S. Eye movements of stuttering and nonstuttering children during silent reading. *Journal of Speech and Hearing Research*, December 1984, *27*, 562-566.

Investigates the differences in the eye movements when reading of normal and stuttering children in the Netherlands. Subjects were diagnosed stutterers (n = 22) and nonstutterers (n = 22) ranging in age from 8-1 to 12-2 years, who were reading at grade level. They were administered two standardized Dutch reading tests, one oral and one silent. Time taken to complete each test was measured and the percentage of words containing oral reading errors calculated. The eye movements of the subjects while silently reading a 320-word passage were then recorded by means of a computer-controlled eye-marker. The two groups did not differ in the percentage of errors made when reading orally, nor in reading comprehension. However, stuttering children displayed more eye fixations and eye regressions than nonstuttering children ($p < .05$). Correlation coefficients were calculated between the number of fixations, the duration of fixations, the number of regressions, the duration of fixations preceding regressions, and the duration of fixations following regressions. For stutterers the correlation coefficients between the frequency and duration measures all approximated zero. For the nonstutterers, the correlation coefficients between the two different kinds of measures were positive and generally significant. Results are taken to indicate a search and sort process among the words in a passage by stutterers when reading silently.

DONE, D. JOHN, & FRITH, CHRISTOPHER D. The effect of context during word perception in schizophrenic patients. *Brain and Language*, November 1984, *23*, 318-336.

Reports two experiments investigating the ability of schizophrenics to use context to aid visual and auditory word perception. In the first experiment, subjects were chronic (n = 22) and acute (n = 11) schizophrenics and nonpatient controls for each group (n = 18), matched for age and socioeconomic status. Chronic schizophrenics were classified as positive or negative on the basis of their symptoms. Words were presented in four conditions. In the first condition, a sentence appeared on a VDU with the last word missing. The subject read the sentence out loud. In this condition the sentence predicted the missing word. The word was then presented with pre- and postmasking for a period of time which increased incrementally until the subject was able to read it aloud. In the second condition the sentence did not predict the target word, and in the fourth condition the word was a semantically unacceptable completion of the sentence. The third condition consisted of a row of Xs in place of a sentence. Each subject completed 16 trials. Independent judges rated incorrect responses for suitability to the context and for their similarity with the visual stimulus. Visual duration thresholds were measured. The control group had a lower visual duration threshold compared to both positive and negative chronic schizophrenics. Both the highly predictive context and the low predictive context produced lower thresholds than the other two contexts (all $p < .01$). Negative schizophrenics made more contextually unsuitable responses than controls ($p < .05$). Acute schizophrenics also differed from controls across all conditions ($p < .005$). In the second experiment, a similar population received an auditory stimulus under analagous conditions. Similar results were obtained for chronic, but not acute, schizophrenics as compared to controls. Results are discussed in terms of automatic and strategic modes of information processing.

BRYANT-TUCKETT, ROSE, & SILVERMAN, LLOYD H. Effects of the subliminal stimulation of symbiotic fantasies on the academic performance of emotionally handicapped students. *Journal of Counseling Psychology*, July 1984, *31*, 295-305.

Investigates the effect of the subliminal activation of fantasies of symbiotic gratification on the reading performance of emotionally handicapped children. Subjects (n = 64) ranged in age from 10.8 to 19.3 years with initial *California Achievement Test* (CAT) grade equivalent reading scores ranging from 1.0 to 11.9. Students were divided into experimental and control groups matched for age, IQ, and reading ability on the CAT. Both groups received tachistoscopic exposures of a subliminal stimulus five times a week for six weeks. For the experimental group, the stimulus was 'Mommy and I are one'; for the control group, it was 'People are walking.' Half the subjects in each group received pictorial as well as verbal stimuli. Subjects were told that the tachistoscopic treatment would make reading easier. Students were posttested on the CAT and scores compared with scores obtained one year earlier. Experimental subjects obtained higher reading scores than control subjects on the posttest ($p < .001$). Arithmetic scores and self-concept scores on the *Adjective Rating Inventory* were also higher for the experimental group ($p < .01$).

Journals Monitored for the Annual Summary

AEDS Journal
Academic Therapy
Action Teacher Education
Adolescence
Adult Education (British NIAE)
Adult Education Quarterly
Alberta Journal of Educational Research
American Annals of the Deaf
American Behavioral Scientist
American Cartographer
American Educational Research Journal
American Journal of Community Psychology
American Journal of Education
American Journal of Mental Deficiency
American Journal of Ophthalmology
American Journal of Optometry and Psychological Optics
American Journal of Orthopsychiatry
American Journal of Psychology
American Journal of Sociology
American Psychologist
American Quarterly
American Sociological Review
American Speech
Applied Ergonomics
Applied Psycholinguistics
Archives of Neurology
Arithmetic Teacher
Arizona English Bulletin
Arizona Reading Journal
Australian Journal of Education
Australian Journal of Psychology
Australian Journal of Reading
Australian Library Journal
Australian Psychologist
A-V Guide
Behavioral Science
Behavioral Science Research
Brain: A Journal of Neurology
Brain & Cognition
Brain & Language
British Journal of Disorders of Communication
British Journal of Educational Psychology
British Journal of Educational Studies
British Journal of Educational Technology
British Journal of Mental Subnormality
British Journal of Psychiatry
British Journal of Psychology
British Journal of Sociology of Education
Bulletin of the British Psychological Society
Bulletin of the Psychonomic Society
Business and Society
California Council for the Social Studies
California Reader
Canadian and International Education
Canadian Journal of Behavioral Science
Canadian Journal of Psychology
Canadian Library Journal
Canadian Modern Language Review
Canadian Psychology
Cartographic Journal
Child Development
Child Psychiatry and Human Development
Childhood Education
Children Today
Children's Literature in Education
Clearing House, The
Cognition International
Cognitive Psychology
Cognitive Science
College Composition and Communication
College English
College and Research Libraries
College Student Journal
Columbia Journalism Review
Communication and Cognition
Communication Education
Communication Monographs
Communication Quarterly
Communication Research
Community Junior College
Comparative Education
Comparative Education Review
Comprehensive Psychiatry
Computers and the Humanities
Connecticut English Journal
Contemporary Education
Contemporary Education Review
Contemporary Educational Psychology
Contemporary Psychology
Cortex
CSIL: Current Studies in Librarianship
Curriculum Inquiry
Daedalus
Deficience Mentale/Mental Retardation
Developmental Medicine and Child Neurology
Developmental Psychology
Discourse Processes
Early Years
Education
Education and Society
Education and Training of the Mentally Retarded
Education and Urban Society
Education Canada
Education Digest
Education for Information
Education Libraries Bulletin
Education of the Visually Handicapped
Education, U.S.A.
Educational and Psychological Measurement

Educational and Psychological Research
Educational Communication and Technology Journal
Educational Forum
Educational Gerontology: An International Quarterly
Educational Horizons
Educational Leadership
Educational Psychologist
Educational Record
Educational Research
Educational Research Quarterly
Educational Researcher
Educational Review
Educational Studies
Educational Technology
ELT Journal
Elementary School Journal
English Education
English in Australia
English in Education
English Journal
Ergonomics
ETS Developments
Evaluation Review
Exceptional Child, The
Exceptional Children
Florida Reading Quarterly
Foreign Language Annals
Forum
Forum for Reading
Gazette: International Journal for Mass Communications Studies
Genetic Psychology Monographs
Gifted Child Quarterly
Harvard Educational Review
High School Journal
Higher Education – Amsterdam
Higher Education Review
History of Education
History of Education Quarterly
Human Development
Human Factors
Illinois Reading Council Journal
Illinois School Research and Development
Imagination, Cognition & Personality
Indian Educational Review
Indiana Media Journal
Individual Psychology
Instructional Science
Intelligence
Interchange
International Journal of Psycholinguistics
International Journal of Psychology
International Library Review
International Research in Reading
International Review of Education
Interracial Books for Children
Irish Journal of Education
Journal of Abnormal Child Psychology
Journal of Abnormal Psychology
Journal of the Acoustical Society of America
Journal of Advertising
Journal of Advertising Research
Journal of Aesthetic Education
Journal of American Optometric Association
Journal of Applied Behavior Analysis
Journal of Applied Behavioral Science
Journal of Applied Developmental Psychology
Journal of Applied Psychology
Journal of Applied Social Psychology
Journal of the Association for the Study of Perception
Journal of Biosocial Studies
Journal of Black Studies
Journal of Child Psychology and Psychiatry
Journal of Clinical Psychology
Journal of Communication
Journal of Communication Disorders
Journal of Consulting and Clinical Psychology
Journal of Counseling Psychology
Journal of Cross-Cultural Psychology
Journal of Curriculum Studies
Journal of Education
Journal of Educational Computing Research
Journal of Educational Measurement
Journal of Educational Research
Journal of Educational Thought
Journal of Experimental Child Psychology
Journal of Experimental Education
Journal of Experimental Psychology: General
Journal of Experimental Psychology: Human Perception and Performance
Journal of Experimental Psychology: Learning, Memory and Cognition
Journal of General Education
Journal of General Psychology
Journal of Genetic Psychology
Journal of Learning Disabilities
Journal of Learning Skills
Journal of Marketing
Journal of Marketing Research
Journal of Mental Imagery
Journal of Multilingual and Multicultural Development
Journal of Negro Education
Journal of Occupational Psychology
Journal of Optometric Vision Development
Journal of Personality
Journal of Reading
Journal of Reading Behavior
Journal of Research and Development in Education
Journal of Research in Personality
Journal of Research in Reading
Journal of Research in Science Teaching

Journal of School Psychology
Journal of Special Education
Journal of Speech and Hearing Disorders
Journal of Speech and Hearing Research
Journal of Structural Learning
Journal of Teacher Education
Journal of Verbal Learning and Verbal Behavior
Journal of Visual Impairment and Blindness
Journal of Vocational Behavior
Journalism Monographs
Journalism Quarterly
Kappa Delta Pi Record
Language and Speech
Language Arts
Language in Society
Language Learning
Learning Disabilities Quarterly
Library Association Journal
Library Journal
Library Quarterly
Library Research
Library Resources and Technical Services
Library Review
Library Trends
Lifelong Trends
Lifelong Learning
Linguistic Inquiry
Linguistics: An Interdisciplinary Journal of the Language Sciences
Mass Communication Review
Measurement and Evaluation in Guidance
Media and Methods
Memory and Cognition
Mental Retardation
Merrill-Palmer Quarterly
Minnesota Reading Association Highlights
Modern Language Journal
Monographs in Language and Reading Studies
Monographs of the Society for Research in Child Development
National Association for Secondary School Principals Bulletin
Nation's School Report
Neuropsychologia
New England Reading Association Journal
New Zealand Journal of Educational Studies
News Research Report
Newspaper Research Journal
Nordic Journal of Linguistics
North Central Association Quarterly
Ohio Reading Teacher
Ontario Psychologist, The
Peabody Journal of Education
Pediatrics
Perception and Psychophysics
Perceptual and Motor Skills
Personnel and Guidance Journal
Personnel Psychology
Perspectives
Phi Delta Kappan
Poetics
Poetics Today
Professional Psychology
Programmed Learning and Educational Technology
Prospects
Psychological Bulletin
Psychological Medicine
Psychological Record
Psychological Review
Psychology
Psychology in the Schools
Psychopharmacologia
Psychophysiology
Public Opinion Quarterly
Quarterly Journal of Experimental Psychology
Quarterly Journal of Speech
Reading
Reading – Canada – Lecture
Reading Education
Reading Horizons
Reading Improvement
Reading in a Foreign Language
Reading Instruction Journal
Reading Psychology
Reading Research Quarterly
Reading Teacher, The
Reading World
Remedial Education
Remedial and Special Education
Research in Education
Research in the Teaching of English
Review of Education, The
Review of Educational Research
Rural Sociology
Scandinavian Journal of Educational Research
Scandinavian Journal of Psychology
Scandinavian Public Library Quarterly
Scholarly Publishing
School Counselor
School Library Journal
School Library Media Quarterly
School Psychology International
School Science & Mathematics
School Science Review
Science
Science Education
Science of Reading
Scientific American
Scottish Educational Review
Sex Roles
Sight-Saving Review
Social Education
Social Psychology Quarterly
Sociology
Sociology of Education

Soviet Psychology
Special Education
Special Education in Canada
Special Libraries
Studies in Art Education
Studies in Educational Evaluation
Survey of Ophthalmology
TESOL Quarterly
Tar Heel Reading Journal
Teachers College Record
Teaching English in the Two-Year College
Teaching English to Deaf and Second Language Students
Teaching Exceptional Children
Teaching of Psychology
Technological Horizons in Education Journal
Tennessee Teacher
Texas Tech Journal of Education
Text
Theory into Practice
Topics in Language Disorders
Universities Quarterly
Urban Education
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Use of English, The
Visible Language
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Western Political Quarterly
Wilson Library Bulletin
Wisconsin State Reading Association Journal

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The following index includes the names of all the authors of reports in the summary followed by the part (Roman numeral), section (Arabic number), and page number in the summary where the citation and short abstract for the report by that author can be found. All authors, whether they are the first author or the name given subsequent to that in a joint effort, are listed in this index. The names of single authors and of first authors in a joint article are italicized. When the report is by two authors, the entry here for the first author given is followed by the last name of the other author. When there are three or more authors, the entry for the first author is followed by "et al." The Roman face (non-italicized) entries in this index are the names of the authors given subsequent to the first author named.

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